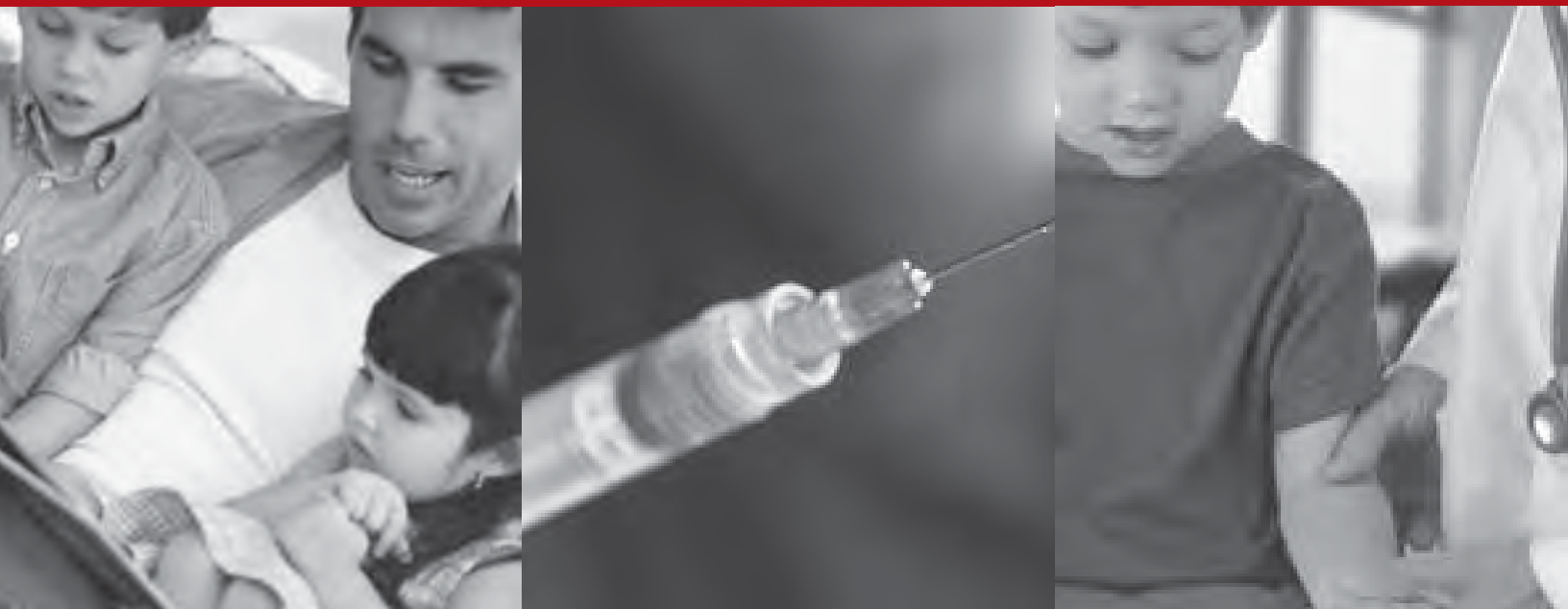




# Missouri's *Pandemic* **INFLUENZA RESPONSE** *Plan*

Missouri Department of Health and Senior Services  
Emergency Response Plan

January 2008



# Table of Contents

---

<a href="#">Introduction</a> .....	3
<a href="#">Phases of a Pandemic</a> .....	10
<a href="#">Department of Health and Senior Services Responsibilities</a> .....	11
<a href="#">Glossary of Acronyms</a> .....	26
<a href="#">Definitions</a> .....	27
<a href="#">Additional Resources</a> .....	30
<a href="#">Listing of Key Officials</a> .....	31

## \* \* \* \* \* Annexes \* \* \* \* \*

<a href="#">Antiviral Storage and Distribution</a>
<a href="#">Community Containment</a>
<a href="#">Health Care Systems Readiness</a>
<a href="#">Laboratory Preparedness</a>
<a href="#">Mental Health</a>
<a href="#">Mortuary Affairs</a>
<a href="#">Public Communications</a>
<a href="#">Special Health Care Needs</a>
<a href="#">Surveillance Investigation and Data/Information Sharing</a>
<a href="#">Vaccine Storage and Distribution</a>

## \* \* \* \* \* Avian Influenza Plan \* \* \* \* \*

For more information on Missouri's Avian Influenza Plan, visit  
<http://www.dhss.mo.gov/PandemicInfluenza/subcommittees/zoonotic/>

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

# Introduction

---

Preparing for, responding to, and recovering from pandemic influenza will require a strategy with many similarities to other disease outbreaks, be they naturally occurring or resulting from terrorist action. The goals of prevention and control of these outbreaks, and the time-honored public health activities to lessen the impact on morbidity and mortality, namely, education, vaccination, prophylaxis, isolation/quarantine, and the closure of public facilities are common to all, despite the particular disease of concern. In addition, clear, concise communication with the public, within the Department of Health and Senior Services (DHSS), and with other agencies remains a critical component, as does the ability of the involved agencies to achieve collaboration and coordination.

DHSS has Emergency Response Plans in place that have been tried, tested, and exercised for all aspects of response and recovery, including those mentioned above relating to disease surveillance, investigation, and control. Where necessary, details or public information templates unique to pandemic influenza have been added into the existing plan and this plan. This plan outlines the pandemic mechanics from the federal level and lists pandemic specific job duties for DHSS staff and the roles of partnered agencies and organizations.

A broad, diverse and geographically dispersed group of agencies and organizations, representing the length, breadth, and interests of the state collaborated with the DHSS in completing the annexes of this plan. With committees organized under the umbrella of the Missouri Homeland Security Council, over four hundred representatives from hospitals, poultry corporations, local health departments, other state agencies, funeral homes, laboratories, financial institutions, fire departments, local and state governments, school boards, utility companies, universities, nursing homes and coroner's offices, among others, engaged with DHSS providing input and expertise to produce a meaningful plan.

DHSS has primary responsibility to safeguard the health of the people of the state and all its subdivisions and will respond in the event of pandemic influenza to limit the impact on public health. These actions will limit the impact on the social and economic infrastructure of the state. DHSS will serve to support the local public health agencies in this effort, and lead the response of a coordinated multitude of federal, state, local, and private organizations and agencies. DHSS reserves the flexibility to modify the plan during the pandemic in response to the actual behavior of the disease and of the effectiveness of the ongoing response. Lessons learned from previous waves will be incorporated going forward and modifications in planning may be made across all sectors to meet the key goals in public health and infrastructure support. Such changes will be rapidly and effectively communicated from DHSS to all partnered agencies and organizations per the communications plan to ensure best practices are consistently implemented statewide.

The following pages lay out the specific responsibilities for both DHSS and coordinated agencies and organizations during the phases of pandemic response.

## Organization

Department of Health and Senior Services

For Organizational Chart and Description of Divisions see: [www.dhss.mo.gov/AboutDHSS](http://www.dhss.mo.gov/AboutDHSS)

---

*An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)*

## **Purpose of Plan**

This plan is designed primarily to guide the operational response of the DHSS to pandemic influenza in Missouri, though segments of information contained within the plan will prove useful to guide activities of planners in other state agencies, at the local level, and to the general public. The plan is intended to provide the process and informational resources for an effective response of DHSS to pandemic influenza resulting from natural causes or a terrorist release. An effective response will reduce the impact on public health (i.e. reduce illness and save lives) and maintain essential services while minimizing economic loss. The following response plan will be implemented after a novel influenza strain begins to spread readily from person-to-person (the advent of phase 4 as declared by the World Health Organization), and is directed toward action and specific responsibilities for Departmental staff directing functional units. This plan for pandemic influenza response integrates with the current DHSS Emergency Response Plan, which would direct these activities into a National Incident Management System compliant Incident Command System as needed.

## **Definition of Influenza**

Pandemic influenza refers to a global influenza epidemic that, in contrast to seasonal influenza: 1) is a novel influenza virus that has undergone an “antigenic shift”; 2) has high population susceptibility worldwide; 3) shows evidence of high person-to-person transmissibility; and 4) is spread over a broad range of geographic areas, causing unusually high rates of morbidity and mortality because of its virulence.

## **Background**

Epidemics of influenza occur annually in the United States, and the DHSS manages ongoing programs of education, surveillance, control, and prevention to minimize the effects of these epidemics.

## **The primary disease prevention strategy for epidemic influenza includes**

- Targeted vaccination and antiviral usage aimed at high-risk populations so as to minimize the effects of expected outbreaks.
- Public information and education.
- Enhanced surveillance.
- Isolation, quarantine, public facility closures, and other control measures.
- The DHSS’ Pandemic Influenza Response Plan (this document) would be implemented as a part of the State’s Emergency Response Plan. Notification of a pandemic influenza would come from the Center for Disease Control and Prevention in phases as outlined later in this document.

If an unexpected epidemic should occur as a result of a known circulating strain of influenza, parts of the pandemic flu plan would be implemented to minimize the outbreak. The parts implemented would depend upon the specifics of the outbreak and would be determined in consultation with Centers for Disease Control and Prevention, DHSS experts, local public health agencies, and local and state elected officials.

---

*An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)*

## **Pandemic Influenza: How Does an Influenza Pandemic Start?**

There are three main types of influenza viruses: A, B, and C. While influenza C causes only mild disease and has not been associated with widespread outbreaks, influenza types A and B cause epidemics nearly every year. Influenza A viruses are divided into subtypes, based on differences in two surface proteins: hemagglutinin (H) and neuraminidase (N). Influenza B viruses are not divided into subtypes. During an influenza season, usually one or more influenza A subtype and B viruses circulate at the same time.

A pandemic is possible when an influenza A virus makes a dramatic change (i.e., "shift") and acquires a new H or H+N. This shift results in a new or "novel" virus to which the general population has no immunity. The appearance of a novel virus is the first step toward a pandemic. In order to cause a pandemic, the novel influenza A virus must also spread easily from person-to-person causing serious disease. Influenza B viruses do not undergo shift and do not cause influenza pandemics.

The reservoir for type A influenza viruses is wild birds; but influenza A viruses also infect animals such as pigs and horses, as well as people. The last two pandemic viruses were combinations of bird and human influenza viruses. Many believe that these new viruses emerged when an intermediate host, such as a pig, was infected by both human and bird influenza A viruses at the same time, creating a new virus. Events in Hong Kong in 1997, however, showed that this is not the only way that humans can become infected with a novel virus. Sometimes, an avian influenza virus can "jump the species barrier" and move directly from chickens to humans to cause disease.

Since, by definition, a novel virus is a virus that has never previously infected humans, or has not infected humans for a long time, it is likely that almost no one will have immunity or antibodies to protect them against the novel virus. Therefore, anyone exposed to the virus--young or old, healthy or weak--could become infected and get sick. If however, the novel virus is related to a virus that circulated long ago, older people who might have been exposed to it in their childhood could have some level of immunity. It has been suggested that because of immunity issues, a novel virus might strike hardest at healthy young adults – an age group not usually considered at risk of severe illness or death from annual influenza. Such widespread vulnerability in the population could lead to a potentially devastating pandemic. (*Source: Centers for Disease Control and Prevention*)

## **Assumptions in Planning**

Pandemic preparedness planning is based on assumptions regarding the evolution and impacts of a pandemic. Defining the potential magnitude of a pandemic is difficult because of different severity levels and virulence between the three 20<sup>th</sup> century pandemics. While the 1918 pandemic resulted in an estimated 500,000 deaths in the U.S., the 1968 pandemic caused an estimated 34,000 U.S. deaths. Similarities between the 20th century pandemics include the fact

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

that in each, about 30 percent of the U.S. population developed illness, with about half seeking medical care. Children have tended to have the highest rates of illness, though not of severe disease and death. Geographical spread in each pandemic was rapid and virtually all communities experienced outbreaks.

This Pandemic Influenza Response Plan is based on assumptions derived from known evidence and expert opinion. The plan does not make predictions; rather, it reflects historical circumstances and current developments. These assumptions are necessary for scaling the plan to some workable format. However, adjustments may be made (and can be made) within the response if some of the assumptions prove to be false or otherwise inadequate.

### **Guiding Principles in Pandemic Influenza Response**

DHSS will be guided by the following principles in initiating and directing its response activities:

- 1) DHSS will base levels of preparedness and response, in coordination with the United States Department of Health and Human Services (DHHS) on the World Health Organization's (WHO) Pandemic Plan and Pandemic Phase guidance.
- 2) DHSS will follow the guidance and direction of the DHHS' Pandemic Influenza Response Plan on the prioritization of groups for distribution of vaccine and antivirals, and maintain consistency with federal agency guidance on laboratory diagnostics, case definitions, clinical management, surveillance, and so forth.
- 3) DHSS will follow the concepts and principles of the National Response Plan and the National Incident Management System in planning and response.
- 4) DHSS will work to build a flexible response system determined, in addition to the above, by the epidemiological features of the virus and the course of the pandemic.
- 5) DHSS will provide honest, accurate, and timely information to the public.
- 6) In advance of an influenza pandemic, DHSS will work with federal, state, and local government partners, and the private sector to coordinate pandemic influenza preparedness activities to achieve interoperable response capabilities.
- 7) In advance of an influenza pandemic, DHSS will encourage all Missourians to be active partners in preparing local communities, workplaces, and homes for pandemic influenza and will emphasize that a pandemic will require Missourians to make difficult choices. An informed and responsive public is essential to minimizing the health effects of a pandemic and the resulting consequences to society.
- 8) DHSS will strive to ensure that preparations made for an influenza pandemic will benefit overall preparedness for any public health emergency or disease outbreak and serve to build capability and capacity to protect the health of all Missourians.
- 9) In advance of an influenza pandemic, DHSS, in concert with federal and local partners, will work to achieve statewide reliable, efficient, and rapid distribution mechanisms for vaccine and antiviral drugs through the Strategic National Stockpile and local stockpiles.
- 10) Clusters of human-to-human transmission anywhere in the world leading to the WHO declaration of phase 4 will trigger initiation of a pandemic response in Missouri. Because we live in a global community, a human outbreak anywhere means risk everywhere.
- 11) DHSS, with federal and local partners, will attempt to prevent an influenza pandemic or delay its emergence in the state by striving to arrest isolated outbreaks of a novel

---

*An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)*



influenza (through isolation, quarantine, travel restrictions, public facility closures, etc.) wherever circumstances suggest that such actions might be successful. At the core of this strategy will be basic public health measures (such as hand washing) to reduce person-to-person transmission.

- 12) At the onset of an influenza pandemic, DHSS will work with the federal government to procure virus vaccine and distribute it to local public health departments for pre-determined priority groups, based on pre-approved local plans. For additional information, refer to the [Vaccine Storage and Distribution Annex](#) and [Antiviral Storage and Distribution Annex](#).
- 13) At the onset of an influenza pandemic, DHSS, in collaboration with federal and local partners, will begin to distribute and deliver antiviral drugs from public stockpiles to healthcare facilities and others with direct patient care responsibility for treatment of the ill from the novel influenza virus.

### **Pandemic Influenza: Assumptions Concerning Initial Response to a Pandemic**

- A new pandemic will be due to a new subtype of influenza A.
- Emergence of new influenza A viruses is inevitable.
- Preparations should be geared toward a 1918 level pandemic. In Missouri, this would extrapolate to (without effective interventions) approximately 1.8 million ill; 900,000 seeking outpatient care; 198,000 hospitalizations; and 38,610 deaths. (*Source: Centers for Disease Control and Prevention*)
- An influenza pandemic of this magnitude will affect all segments of society, and could overwhelm health care and mortuary systems, severely disrupt commerce and economic activity, breakdown normal societal patterns, and cause psychosocial trauma.
- An effective response to such a pandemic will require a coordinated community-wide effort from local, state, and federal agencies, private businesses, individual citizens, elected officials, and religious leaders.
- Risk groups for severe and fatal infections cannot be predicted with certainty.
- A pandemic could occur in any month, not only during the typical influenza season.
- People who become ill may shed virus and can transmit infection for one-half to one day before they feel the onset of illness.
- The pandemic will occur in waves, with at least two waves likely. In an affected community, a pandemic wave will last about six – eight weeks with as little as 30 days between waves.
- Preparations should be made for outbreaks that will likely occur simultaneously across the state and nation, limiting the ability of any one jurisdiction to provide support and assistance to others.
- A new virus may be a re-emerging, previously known human virus subtype which has not recently been in circulation, or a virus of avian origin, emerging either through stepwise ‘adaptation’ conferring greater affinity for humans or through a process of genetic ‘reassortment’ between the genes of an avian and human virus.
- From time to time, avian influenza viruses will infect people directly exposed to infected poultry (as has been occurring mainly in the Far East since 1997) but may not necessarily evolve into pandemic viruses.

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

- Such a strain could first emerge anywhere, including Missouri, but it is most likely to emerge in the Far East—the birthplace of recent pandemics—because:
  - Human proximity to ducks, other poultry and domestic pigs in farming communities in South East Asia and China, which facilitates mingling of human and animal viruses that may then exchange genetic material, resulting in a new ‘reassorted’ strain.
  - Viruses may directly transfer from birds (or animals) to humans and adapt to become genetically more likely to infect people.
  - Viruses may re-emerge from unrecognized or unsuspected reservoirs.
  - There is already wide dissemination of H5N1 infection in poultry, domestic fowl and wild birds.
- Whenever a new or novel influenza virus is isolated from an infected person, its potential to spread directly from person-to-person and cause outbreaks of illness needs to be assessed.
- False alarms are likely, but until it is known whether a new virus has developed which resulted in person-to-person transmission, its pandemic potential must remain under consideration and investigation.
- Vaccine for the novel influenza virus will not be available in Missouri before the virus reaches the state.
- Initial distribution of vaccine to Missouri will be extremely limited and must be prioritized to maximize effectiveness.
- Effective antivirals will be in limited supply and must be prioritized to maximize effectiveness.
- Education, public health interventions, basic public health measures, and social controls must be relied upon initially to slow the spread of the disease within Missouri.

#### **Assumptions about pandemic disease**

- Susceptibility to the pandemic influenza subtype will be universal.
- The clinical disease attack rate will be 30 percent in the overall population. Illness rates will be highest among school-aged children (about 40 percent) and decline with age. Among working adults, an average of 20 percent will become ill during a community outbreak.
- Of those who become ill with influenza, 50 percent will seek outpatient medical care.
- The number of hospitalizations and deaths will depend on the virulence of the pandemic virus. Estimates differ about 10-fold between more and less severe scenarios. Vulnerable age groups cannot be predicted with certainty. During annual fall and winter influenza season, infants and the elderly, people with chronic illnesses, and pregnant women are usually at higher risk of complications from influenza infections. In contrast, during the 1918 pandemic, most deaths occurred among young, previously healthy adults.
- The typical incubation period (the time between acquiring the infection until becoming ill) for influenza averages two days. We assume this would be the same for a novel strain that is transmitted between people by respiratory secretions.
- People who become ill may shed the virus and can transmit infection for one-half to one day before the onset of illness. Viral shedding and the risk for transmission will be

---

*An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)*



greatest during the first two days of illness. Children will shed the greatest amount of virus and, therefore are likely to pose the greatest risk for transmission.

- On average a single ill person will transmit about two secondary infections. Some estimates from past pandemics have been higher, with up to three secondary infections per primary case.
- In an affected community, a pandemic outbreak will last about six – eight weeks. At least two pandemic disease waves are likely. Following the pandemic, the new viral subtype is likely to continue circulating and to contribute to seasonal influenza.
- The seasonality of a pandemic cannot be predicted with certainty. The largest waves in the U.S. during 20th century pandemics occurred in the fall and winter. Experience from the 1957 pandemic may be instructive in that the first U.S. cases occurred in June but no community outbreaks occurred until August and the first wave of illness peaked in October.

# The Phases of a Pandemic

---

*The phases described have been summarized from the World Health Organization (WHO) global influenza preparedness plan published in 2005. It is important to understand that the actual spread of the virus may or may not be described by these phases.*

## **Interpandemic Period**

**Phase 1:** No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.

**Phase 2:** No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

## **Pandemic Alert Period**

**Phase 3:** Human infection(s) with a new subtype, but no human-to-human spread, or at most, rare instances of spread to a close contact.

**Phase 4:** Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

**Phase 5:** Large cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).

## **Pandemic Period**

**Phase 6:** Pandemic increased and sustained transmission in general population.

### **\*\*\*\*\*Note of Explanation\*\*\*\*\***

*The phases and assignment of responsibilities within the plan based on these phases are products of planning assumptions. As such, the checklists begin with phase 4 (as the current pandemic status as of July 2007 is phase 3) based on the assumption that the virus will appear in the Far East and enter the United States and Missouri as a human disease spreading human-to-human. However, the possibility remains that the novel virus could emerge within the United States, even in Missouri, rather than internationally. If a circulating animal virus subtype appears in Missouri (most likely as a High Pathogenic Avian Influenza in poultry), especially if human infections with this subtype occur (essentially phases 2 and 3 developing in state), this will precipitate a full-scale emergency response by Department of Health and Senior Services and local public health agencies, SEMA, Missouri Department of Agriculture, federal health and agricultural agencies, and impacted industries. This response process is contained in a separate Avian Influenza Plan.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

# Department of Health and Senior Service Responsibilities

---

## Director – Department of Health and Senior Services

### **Pandemic Alert Period: Phase 4**

- ❑ Will be notified by Director of Division of Community and Public Health of phase shift.
- ❑ After briefing will consult with key staff and direct appropriate actions.

### **Pandemic Alert Period: Phase 5**

- ❑ Will be notified by Director of Division of Community and Public Health of phase shift.
- ❑ After briefing will (as necessary, directly or through delegation):
  - Notify Governor's Office.
  - Declare a public health emergency.
  - Request Deputy Director to identify staff not working on pandemic flu, reassign staff and develop work schedule.
  - Determine need and consider activating the Department Situation Room (DSR) in conjunction with the Center for Emergency Response and Terrorism Director.
  - Notify the Local Public Health Agencies to:
    - Implement their pandemic flu plans.
    - Communicate updates.

### **Pandemic Period: Phase 6**

- ❑ Will be notified by Director of Division of Community and Public Health of phase shift.
- ❑ After briefing will:
  - Maintain the declaration of public health emergency.
  - Update the Governor's Office on anticipated actions.
  - Have Deputy Director reduce programmatic functions to maintenance operations and designate available staff to assist in data entry, surveillance, vaccinations, medication distribution, etc.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## Director – Division of Community and Public Health

*Other Resource:*

*Special Health Care Needs Annex*

### **Pandemic Alert Period: Phase 4**

- ❑ Will be notified by State Epidemiologist of the phase shift.
  - Direct Division of Community and Public Health staff to assess and prepare response.
- ❑ Notify daily list (includes: Director and Deputy Director of Department of Health and Senior Services, Center for Emergency Response and Terrorism, State Public Health Laboratory, Division of Regulation and Licensure, Division of Senior and Disability Services, Center for Local Public Health Services, Section for Disease Control and Environmental Epidemiology, Office of Public Information, Office of Community and Public Health Emergency Coordination, Bureau of Immunization Assessment and Assurance, Bureau of Communicable Disease Control and Prevention, Office of General Counsel, Medical Advisors and State Epidemiologist).
- ❑ Lead briefing discussions. (*Briefing will be set up by DSR staff.*) Provide overview of ongoing Department of Health and Senior Services (DHSS) activities with daily list.

### **Pandemic Alert Period: Phase 5**

- ❑ Will be notified by State Epidemiologist of the phase shift.
  - Direct Division of Community and Public Health staff to assess and prepare response.
- ❑ Notify daily list.
- ❑ Lead briefing discussions. (*Briefing will be set up by DSR staff.*) Provide overview of ongoing DHSS activities with daily list.
- ❑ Project effects of the novel influenza outbreak.
- ❑ Discuss major elements of enhanced surveillance.
- ❑ Discuss vaccine/antiviral plan.
- ❑ Recommend priority vaccination and antiviral distribution.
- ❑ Discuss communication strategies for Local Public Health Agencies, hospitals, and public.

### **Pandemic Period: Phase 6**

- ❑ Will be notified by State Epidemiologist of the phase shift.
  - Direct Division of Community and Public Health staff to assess and prepare response.
- ❑ Notify daily list.
- ❑ Provide updates and briefings.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## Director - Center for Emergency Response and Terrorism

### **Pandemic Alert Period: Phase 4**

- ❑ Will be notified by State Epidemiologist of the phase shift.
- ❑ Set-up briefing for Director of Division of Community and Public Health.
- ❑ Communicate with internal staff and external organizations by issuing a Health Alert.

### **Pandemic Alert Period: Phase 5**

- ❑ Will be notified by State Epidemiologist of the phase shift.
- ❑ Set-up briefing for Director of Division of Community and Public Health.
- ❑ After briefing, notify State Emergency Management Agency.
- ❑ Stand-up DSR, as directed by the Director of the Department of Health and Senior Services.
- ❑ Communicate with internal staff and external organizations by issuing a Health Alert.

### **Pandemic Period: Phase 6**

- ❑ Will be notified by State Epidemiologist of a phase shift.
- ❑ Set-up briefing for Director of Division of Community and Public Health.
- ❑ Notify State Emergency Management Agency.
- ❑ Communicate with internal staff and external organizations by issuing Health Alerts.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## Chief - Office of General Counsel

### *Other Resources:*

*HHS Pandemic Influenza Plan – Legal Authorities*

*HHS Pandemic Influenza Plan – Part 2. Public Health Guidance on Pandemic Influenza for State and Local Partners*

### **Throughout the Pandemic Period**

After briefing by Director of Division of Community and Public Health will:

- ☐ Provide legal counsel.
- ☐ Assist in updating documents as needed.
- ☐ Serve as a liaison to other agencies legal staff.
- ☐ Provide guidance and direction as needed.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)



## State Epidemiologist, Office of Epidemiology

*Other Resource:*

*Summary of Public Health Roles and Responsibilities for Clinical Guidelines*

### **Pandemic Alert Period: Phase 4**

- ☐ Will be notified by the Centers for Disease Control and Prevention of phase shifts.
- ☐ Notify the Director of Division of Community and Public Health of the change in alert status.
- ☐ Notify the Director of Center for Emergency Response and Terrorism of the change in alert status.
- ☐ Participate in briefings.
- ☐ Carry out normal duties as they apply to outbreaks.
- ☐ Monitor bulletins and events related to influenza and engage in vigorous proactive communications with Centers for Disease Control and Prevention related to the novel influenza virus.
- ☐ Use statewide surveillance system to assure data can be analyzed in conjunction with Office of Community and Public Health Emergency Coordination (OEC).
- ☐ Work with state planner to assure coordinated effort among regional staff.

### **Pandemic Alert Period: Phase 5**

- ☐ Monitor bulletins from the Centers for Disease Control and Prevention regarding virologic, epidemiologic and clinical findings associated with new variants isolated within and outside of the United States.
- ☐ Notify the Director of Division of Community and Public Health of the change in alert status.
- ☐ Notify the Director of Center for Emergency Response and Terrorism of the change in alert status.
- ☐ Participate in conference calls.
- ☐ Continue to carry out duties as they apply to outbreaks.

### **Pandemic Period: Phase 6**

- ☐ Notify the Director of Division of Community and Public Health of the change in alert status.
- ☐ Notify the Director of Center for Emergency Response and Terrorism of the change in alert status.
- ☐ Continue to carry out duties as they apply to outbreaks.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## **Chief – Office of Public Information**

*Other Resources:*

*Public Communications Annex*

*Summary of Public Health Roles and Responsibilities in Public Health Communications*

### **Pandemic Alert Period: Phase 4**

After briefing by Director of Division of Community and Public Health will:

- ☐ Coordinate and manage public information.
- ☐ Develop key messages for media and general public.
- ☐ Coordinate messages with the Office of the Governor.
- ☐ Reexamine prepared media releases.
- ☐ Update media releases if necessary.
- ☐ Review and be prepared to use Public Information Emergency Communications Plan.
- ☐ Check for availability of key spokespeople.
- ☐ Brief key spokespeople as necessary.
- ☐ Finalize communications strategy with daily list.
- ☐ Consult with department experts if necessary.
- ☐ Prepare for media and public inquiries.
- ☐ Participate in/arrange media release and press briefings.
- ☐ Schedule media informational workshops in several locations throughout the state.
- ☐ Ensure web site information is updated routinely.
- ☐ Be prepared to expand hotline to ten (10) lines and add DHSS call handlers.

### **Pandemic Alert Period: Phase 5**

After briefing by Director of Division of Community and Public Health will:

- ☐ Continue coordinating and controlling information as above.
- ☐ Develop new messages in accordance with changes in the outbreak.

### **Pandemic Period: Phase 6**

After briefing by Director of Division of Community and Public Health will continue as stated above.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## **Administrator – Section for Disease Control and Environmental Epidemiology**

### *Other Resources:*

*Surveillance Investigation and Data / Information Sharing Annex*

*Summary of Roles and Responsibilities in Managing Travel – Related Risk of Disease Transmission*

*Summary of Public Health Roles and Responsibilities for Vaccine Distribution and Use*

*Summary of Public Health Roles and Responsibilities for Antiviral Distribution and Use Infection Control*

*Summary of Public Health Roles and Responsibilities for Clinical Guidelines*

*Summary of Public Health Roles and Responsibilities in Pandemic Influenza Surveillance*

### **Pandemic Alert Period: Phase 4**

After instruction from Director of Division of Community and Public Health will:

- Instruct the Bureau of Immunization Assessment and Assurance (BIAA) to:
  - Coordinate with the Strategic National Stockpile Manager to:
    - Review vaccination and antiviral distribution plan.
    - Finalize establishment of priority groups in each community statewide.
    - Coordinate with Local Public Health Agencies, hospitals, and Bureau of Communicable Disease Control and Prevention (BCDCP) on Point of Dispensing Sites.
    - Coordinate with State Public Health Laboratory on testing.
    - Monitor staffing/workload gaps.
    - Work with the Center for Emergency Response and Terrorism in the preparation of Health Alerts.
- Instruct the BCDCP to:
  - Coordinate with the Office of Epidemiology (OOE), and OEC.
  - Evaluate resources and prioritize staffing for pandemic response.
  - Work with the Center for Emergency Response and Terrorism in the preparation of Health Alerts.
  - Coordinate with the BIAA.
  - Brief the Regional Senior Epidemiologists with instructions to:
    - Participate in briefings.
    - Carry out normal duties as they apply to outbreaks.
    - Monitor bulletins and events related to influenza.
    - Instruct the Local Regional Epidemiologists and Planners to:
      - Review local plan – Point of Dispensing Sites, vaccination/drug plan.
      - Meet with other regional staff to assure consistency in message and plan.
      - Initiate heightened surveillance, to include both active and passive surveillance.
      - Assure that all newly diagnosed cases are entered into the appropriate data surveillance system in a timely manner to provide current data for analysis.

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

- Assist assigned counties as needed.

### **Pandemic Alert Period: Phase 5**

After instruction from Director of Division of Community and Public Health will:

- ❑ Brief new employees assigned to work on pandemic influenza.
- ❑ Evaluate resources available to manage the outbreak.
- ❑ Work with Center for Emergency Response and Terrorism in the preparation of Health Alerts.
- ❑ Instruct the BIAA to continue as above.
- ❑ Instruct the BCDCP to continue as above, in addition, the Chief, BCDCP will instruct the Regional Senior Epidemiologists to:
  - Continue as above in addition to other emergency response duties.
  - Maintain communication with regional epidemiology specialists and disease investigation staff.
  - Analyze regional and state data from statewide surveillance system in conjunction with OEC.
  - Brief additional regional staff assigned to work on pandemic influenza.
  - Assure communication with counties and regional emergency response staff continues to occur.
  - Coordinate with state emergency response planners to evaluate resources available to vaccinate and manage the outbreak within assigned area.

### **Pandemic Period: Phase 6**

After instruction from Director of Division of Community and Public Health will:

- ❑ Continue as above in addition to other emergency response duties.
- ❑ Instruct the BCDCP to continue as above, in addition, the Chief, BCDCP will instruct the Regional Senior Epidemiologists to:
  - Work with regional and county staff in assigned area to implement vaccine distribution and opening of Point of Dispensing Sites.
  - Work with state planner to assure coordinated effort among regional staff.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## **Chief - Office of Community and Public Health Emergency Coordination**

### *Other Resources:*

*Summary of Roles and Responsibilities in Managing Travel – Related Risk of Disease Transmission*

*Summary of Public Health Roles and Responsibilities for Vaccine Distribution and Use*

*Summary of Public Health Roles and Responsibilities for Antiviral Distribution and Use Infection Control*

*Summary of Public Health Roles and Responsibilities for Clinical Guidelines*

*Summary of Public Health Roles and Responsibilities in Pandemic Influenza Surveillance*

### **Pandemic Alert Period: Phase 4**

After instruction by Director of Division of Community and Public Health will:

- ❑ Coordinate heightened surveillance efforts, including:
  - BT and passive surveillance, sentinel providers.
  - Daily monitoring of hospitals.
  - Communicate with Local Public Health Agencies.
  - Communicate with surveillance sites.
  - Analysis of data.
- ❑ Coordinate with Section for Disease Control and Environmental Epidemiology (SDCEE).
- ❑ Coordinate with Center for Emergency Response and Terrorism.
- ❑ Coordinate with OOE.
- ❑ Coordinate with State Public Health Laboratory.
- ❑ Coordinate with Center for Local Public Health Services.
- ❑ Provide updates to the Director of Division of Community and Public Health.

### **Pandemic Alert Period: Phase 5**

After instruction by Director of Division of Community and Public Health will:

- ❑ Continue the coordination of heightened surveillance efforts (as above), and (if necessary):
  - Monitor non-hospital related deaths.
  - Monitor adverse events related to vaccines and antivirals.
- ❑ Provide updates to the Director of Division of Community and Public Health.

### **Pandemic Period: Phase 6**

After briefing by Director of Division of Community and Public Health will continue as above.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## Section for Health Standards and Licensure

*Other Resources:*

*Health Care Systems Readiness Annex*

*Summary of Roles and Responsibilities for Healthcare and Public Health Partners*

### **Pandemic Alert Period: Phase 4**

After briefing from Director of Division of Community and Public Health will:

- ❑ Ask hospitals to determine availability of critical equipment and medicines.

### **Pandemic Alert Period: Phase 5**

After briefing from Director of Division of Community and Public Health will:

- ❑ Update Point of Dispensing Site hospitals, providers, and Missouri Hospital Association.
- ❑ Activate local response plans.

### **Pandemic Period: Phase 6**

After briefing from Director of Division of Community and Public Health will continue as above.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)



## **Director – State Public Health Laboratory**

*Other Resources:*

Laboratory Preparedness Annex

Summary of Roles and Responsibilities for Public Health and Clinical Laboratories in Laboratory Diagnostics

### **Pandemic Alert Period: Phase 4**

After briefing from Director of Division of Community and Public Health will:

- ❑ Enhance surveillance for the novel virus throughout the state by supplying such information on sample submission and protocols as necessary to Laboratory Response Network (LRN) laboratories, using Health Alerts created in cooperation with SDCEE and the Center for Emergency Response and Terrorism and by other communication means if necessary.
- ❑ Increase communications with Centers for Disease Control and Prevention to ensure the best information regarding strain typing, reagent specifics, and other such information related to the novel virus is available to the State Public Health Laboratory and associated network of partners.
- ❑ Redirect laboratory staffing, inspect equipment, monitor supplies, and other such steps as needed in preparation for testing the novel virus.
- ❑ Communicate expeditiously to the Division of Community and Public Health, any confirmation of the novel virus within the state.
- ❑ Coordinate, with Local Public Health Agencies, in providing technical consultation, necessary sampling kits, and other assistance as may be needed for surveillance of the novel virus.

### **Pandemic Alert Period: Phase 5**

After briefing from Director of Division of Community and Public Health will:

- ❑ Continue as above in coordination and communications with Division of Community and Public Health, LRN, Local Public Health Agencies, Centers for Disease Control and Prevention, and so forth.
- ❑ Update, in conjunction with SDCEE and the Center for Emergency Response and Terrorism, Health Alerts modifying (by prioritization of regions, details of sample submission, etc.) the enhanced surveillance effort for the novel virus.
- ❑ Communicate expeditiously to the Division of Community and Public Health, trends and movement of the novel virus within the state.

### **Pandemic Period: Phase 6**

After briefing from Division of Community and Public Health Director will continue as above.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## **Director - Center for Local Public Health Services**

### *Other Resources:*

*HHS Pandemic Influenza Plan Part 2. Public Health Guidance on Pandemic Influenza for State and Local Planning*

### **Pandemic Alert Period: Phase 4**

After briefing from Director of Division of Community and Public Health will:

- ☐ Maintain communication with the Administrator of SDCEE.
- ☐ Maintain communication with the DSR (once activated).
- ☐ Maintain communication with Local Public Health Agency Administrators.
- ☐ Poll Local Public Health Agencies to determine needed doses of vaccine and antivirals for identified high priority populations.
- ☐ Coordinate with the Chief, BIAA and Strategic National Stockpile Manager on vaccine and antiviral information.
- ☐ Interpret DHSS guidance for Local Public Health Agencies, provide advice, maintain relationships, answer questions, and make referrals.
- ☐ Assist in the assessment of capacities and capabilities of the Local Public Health Agencies.
- ☐ Serve as a conduit for information between DHSS and the Local Public Health Agencies.
- ☐ Redirect staff and resources within Center for Local Public Health Services as necessary.
- ☐ Maintain knowledge of the deployment level of the Local Public Health Agency workforce.
- ☐ Recommend Local Public Health Agency representatives to provide local input.
- ☐ Work with Director of Division of Community and Public Health to consider easing routine contract work of Local Public Health Agencies to free staff for the pandemic effort.

### **Pandemic Alert Period: Phase 5**

After briefing from Director of Division of Community and Public Health will continue as above.

### **Pandemic Period: Phase 6**

After briefing from Director of Division of Community and Public Health will continue as above.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## Administrator - Section for Long Term Care

### **Pandemic Alert Period: Phase 4**

After briefing from Director of Division of Community and Public Health will:

- ❑ Instruct the seven (7) regional offices to determine from all long term care facilities the number and location of high-risk residents; and the availability of medicines and ancillary medical treatments.

### **Pandemic Alert Period: Phase 5**

After briefing from Director of Division of Community and Public Health will:

- ❑ Update the seven (7) regional offices, facilities, Missouri Health Care Association, Missouri Homes for the Aged, Missouri Assisted Living Association, and Missouri League of Nursing Home Administrators.
- ❑ Activate local response plans.

### **Pandemic Alert Period: Phase 6**

After briefing from Director of Division of Community and Public Health will continue as above.

*The Department of Health and Senior Services will use its Emergency Response Plan. These checklists indicate the roles and responsibilities for pandemic influenza response.*

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

## DHSS Mental Health Coordinator

*Other Resources:*

*Mental Health Annex*

*Summary of Public Health Roles and Responsibilities in Workforce Support*

### **Pandemic Alert Period: Phase 4**

- ❑ Will be notified of the phase shift by the Center for Emergency Response and Terrorism.
- ❑ Evaluate mental health assets and anticipated resources required to meet the threat at hand.
- ❑ Notify mental health experts and other partners to be ready for possible activation in response to a public health emergency.
- ❑ Provide *ad hoc* training and orientation for those mental health professionals who may be deployed to support emergency-related public health response efforts (mass prophylaxis sites, local hospitals, alternate care facilities, etc.).
- ❑ Provide consultation to local mental health providers in adapting their response for special populations (hospital and healthcare workers, children, older adults and ethnic communities, first responders, homebound, etc.).
- ❑ Provide consultation and training for frontline public health workers, such as state and local public health department staff, physicians, nurses, medical technicians, and others in anticipating and responding to epidemic-related mental health behaviors such as stress reactions, misattribution of normal arousal symptoms, and panic.
- ❑ Disseminate psycho-educational materials to various populations addressing the mental health impact of the pandemic event, as well as strategies for coping with fear and anxiety and access to mental health services.
- ❑ Conduct mental health-specific needs assessments and rapid identification of vulnerable populations and gaps in mental health services that may exacerbate the psychosocial response to the event.

### **Pandemic Alert Period: Phase 5**

- ❑ Will be notified of the phase shift by the Center for Emergency Response and Terrorism.
- ❑ Continue with the above. In addition:
  - Utilize existing relationships with Voluntary Organizations Active in Disasters and faith-based organizations in coordinating and unifying mental health messages and strategies.
  - Work with Public Information Officers to craft public service mental health messages in support of the overall emergency public health response.
  - Increase recruitment of qualified outreach workers to provide community-based crisis counseling and psycho-education in rural and otherwise difficult to reach communities.
  - Update and modify online mental health/pandemic-related websites.
  - Deploy counselors to deliver multi-lingual, multi-cultural mental health support services directed at all critical outbreak-related functional areas (Strategic National Stockpile Receiving, Storage and Staging sites, Point of

---

An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)

Dispensing Sites, public health headquarters, emergency medical service bases of operation, etc.).

- Provide stress management services and training for those public health personnel working in high-demand settings.
- Deploy staff (life safety issues notwithstanding), to high-emotion locations (morgues, funeral homes, hospitals, pediatric units, pharmacies, etc.) to work to reduce agitation among individuals who are upset.
- Coordinate with other crisis counseling programs (American Red Cross, county prosecutor's victims advocates, etc.) to ensure the interoperability of counseling services at all points within the community.
- Deliver (life safety issues notwithstanding) support services to schools and other institutions to assist staff, students/residents, etc., with grief and bereavement issues and the cumulative stresses related to a protracted health emergency.
- Offer ongoing stress management activities for crisis counselors and other mental health workers engaged in any outbreak-related efforts.
- Offer ongoing stress management services to personnel within the incident command and control structure of the emergency management system.
- Deliver specialized mental health support services to medical professionals, first responders, and public health workers to address stress management concerns to reduce the potential for adverse psychological reactions within their workforces.

#### **Pandemic Period: Phase 6**

- ❑ Will be notified by Center for Emergency Response and Terrorism of the phase shift.
- ❑ Continue with the above. In addition:
  - Provide ongoing support for clergy, morticians, and funeral workers.
  - Promote the development of grass roots, community self-help groups to address the long-term emotional consequences of the pandemic.
  - Promote and offer technical assistance and other peer-support programs to first responders to address the potential long-term emotional impact of the event.
  - Deliver debriefing and other post-event psychological services for first responders, public health and other professionals involved in the event.
  - Work with community mental health provider agencies, academic institutions and other specialists to develop treatment models to address the lingering or long-term emotional consequences of the pandemic event.
  - Maintain a telephone help-line providing tele-counseling, updated resources and facilitated referrals for behavioral health services, as well as online resources.
  - Maintain online psycho-educational and resource/referral web sites developed during earlier phases.

## Glossary of Acronyms

---

BCDCP: Bureau of Communicable Disease Control and Prevention

BIAA: Bureau of Immunization Assessment and Assurance

CDC: Centers for Disease Control and Prevention

CERT: Center for Emergency Response and Terrorism

CLPHS: Center for Local Public Health Services

DCPH: Division of Community and Public Health

DHHS: (United States) Department of Health and Human Services

DHSS: Missouri Department of Health and Senior Services

DRL: Division of Regulation and Licensure

DSDS: Division of Senior and Disability Services

DSR: Department Situation Room

LPHA: Local Public Health Agency

MHA: Missouri Hospital Association

OEC: Office of Community and Public Health Emergency Coordination

OOE: Office of Epidemiology

POD: Point of Dispensing

SDCEE: Section for Disease Control and Environmental Epidemiology

SEMA: (Missouri) State Emergency Management Agency

SNS: Strategic National Stockpile

SPHL: (Missouri) State Public Health Laboratory

WHO: World Health Organization



## Definitions

---

**Antigenic Shift:** Process by which two (2) strains of the influenza A virus exchange genetic material to form a subtype having a mixture of surface antigens of the parent viruses.

**Antigenic Drift:** Naturally occurring genetic mutations of influenza that affect antigenic surface protein expression. Antigenic drift occurs in all types of influenza including influenza A, B and C.

**Antivirals:** Drugs developed for the treatment of patients suffering from viral infections including the influenza virus. This class of drugs includes zanamivir (Relenza) and oseltamivir (Tamiflu), neuroaminidase inhibitors that have shown the ability to reduce flu-like symptoms in some infected patients. Effectiveness of these drugs depends on the strain of the infecting virus and the start of treatment as related to the onset of symptoms.

**Avian Influenza:** All known avian flu viruses belong to the species of virus called influenza A virus. All subtypes of influenza A virus are adapted to birds, which is why for many purposes avian flu virus *is* the influenza A virus

**Daily List:** Group made up of the Director and Deputy Director of Department of Health and Senior Services, Director of Division of Community and Public Health, Center for Emergency Response and Terrorism, State Public Health Laboratory, Division of Regulation and Licensure, Division of Senior and Disability Services, and Center for Local Public Health Services, Administrator of Section for Disease Control and Environmental Epidemiology, Chief of the Office of Public Information, Chief of the Office of Emergency Coordination, Bureau of Immunization Assessment and Assurance and Bureau of Communicable Disease Control and Prevention, Office of General Counsel, Medical Advisors and State Epidemiologist. This is the group of key decision makers with resource allocation authority with Department of Health and Senior Services.

**H5N1:** Type of avian flu which only very rarely affects humans. It is an influenza A virus subtype that occurs mainly in birds, is highly contagious among birds, and can be deadly to them.

**Health Alert:** Notices provided by government and/or health-related organizations concerning relevant information related to the health and safety of the public. These may include notices of travel restrictions, information concerning sites of novel outbreaks around the world, notification of World Health Organization phase shifts etc.

**Isolation:** Isolation is the separation for the period of communicability of infected individuals and animals from other individuals and animals, in places and under conditions as will prevent the direct or indirect transmission of the infectious agent from infected individuals or animals to other individuals or animals who are susceptible or who may spread the agent to others. Isolation may be voluntary or enforced.

**LRN Laboratories:** The Laboratory Response Network (LRN) and its partner laboratories, including the Missouri State Public Health Laboratory, maintain an integrated national and international network of laboratories that are fully equipped to respond quickly to emerging infectious diseases and other public health threats and emergencies through state of the art diagnostic techniques.

**National Vaccine Program Office:** The National Vaccine Program Office has responsibility for coordinating and ensuring collaboration among the many federal agencies involved in vaccine and immunization activities. The National Vaccine Program Office provides leadership and coordination among federal agencies, as they work together to carry out the goals of the National Vaccine Plan.

**Novel Influenza Virus:** Virus that has never been reported in the past as to cause human illness and therefore will result in the lack of available vaccine development and inherent immune resistance. May result from genetic change of virus currently known to effect humans and/or genetic transfer between viruses to confer infectivity.

**Pandemic Influenza:** A pandemic is a global disease outbreak. A flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity, and for which there is no vaccine. The disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in very short time.

**Phase Shift:** Declaration of transition between World Health Organization phases made by the Director-General of World Health Organization. Each phase of alert coincides with a series of recommended activities to be undertaken by World Health Organization and Department of Health and Senior Services. Changes from one phase to another are triggered by several factors, which include the epidemiological behavior of the disease and the characteristics of circulating viruses.

**Public Health Emergency:** Emergency health threats, including pandemic influenza, that require exercise of essential government functions to ensure the safety of their residents. By declaring an emergency, officials are enabled to enact plans that have been designed to best serve their people while acknowledging the threat of this event requires the attention of various state organizations.

**Points of Dispensing:** Predefined sites used for dispensing critical supplies to hospitals and people. These items might include those maintained as part of the Strategic National Stockpile or vaccine distribution.

**Priority Groups:** Those groups identified to be in the greatest need of a service, such as vaccination or antiviral treatment, in the event of a pandemic influenza outbreak.

**Providers:** Those individuals providing services directly to the community. Examples include physicians, nurses, local business people, etc.

**Quarantine:** Quarantine is a period of detention for persons or animals that may have been exposed to a reportable disease. The period of time will not be longer than the longest period of communicability of the disease. The purpose of quarantine is to prevent effective contact with the general population. Quarantine may be voluntary or enforced.

**Sentinel Physician Surveillance:** Enhanced passive surveillance with physicians as the reporting entity.

- Surveillance, active - surveillance initiated by a health department
- Surveillance, enhanced passive - surveillance initiated by the source of data, often a health care provider or clinical laboratory rather than a health department
- Surveillance, sentinel - to identify the initial introduction of a disease as soon as possible to prevent an extensive and sustained outbreak.

**Sentinel Providers:** Missouri physicians of any specialty that report the total number of patient visits each week and number of patient visits for influenza-like illness by age group (0-4 years, 5-24 years, 25-64 years,  $\geq 65$  years). These data are transmitted once a week to a central data repository at Centers for Disease Control and Prevention for monitoring. Specimens can also be sent directly to Centers for Disease Control and Prevention for analysis.

**State Program Managers:** Individuals responsible for unique components of the state pandemic influenza plan. These leaders are entrusted to oversee the development and implementation, as needed, of the pandemic influenza response plan.

**Strain Typing:** Laboratory analysis of isolates collected from infected individuals to determine the subtype of influenza virus responsible for the infection and resulting illness.

**Strategic National Stockpile:** Centers for Disease Control and Prevention's Strategic National Stockpile has large quantities of medicine and medical supplies to protect the American public if there is a public health emergency severe enough to cause local supplies to run out. Once federal and local authorities agree that the Strategic National Stockpile is needed, medicines will be delivered to any state in the U.S. within 12 hours.

**Surveillance:** The ongoing systematic collection, analysis, and interpretation of outcome-specific data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know. Epidemiologic activities would include identification, evaluation, and monitoring of cases and contacts.

## Additional Resources

---

*For additional, topic specific, information, please refer to the resources below.*

### General Information

- <http://www.dhss.mo.gov/PandemicInfluenza>

### Business / Continuity of Operations

- [www.dhss.mo.gov/PandemicInfluenza/businesses.html](http://www.dhss.mo.gov/PandemicInfluenza/businesses.html)
- [www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html)
- [www.pandemicflu.gov/plan/workplaceplanning](http://www.pandemicflu.gov/plan/workplaceplanning)

### Ready in 3 Pandemic Influenza

- [www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html)
- [www.dhss.mo.gov/Ready\\_in\\_3/MainReadyForm.html](http://www.dhss.mo.gov/Ready_in_3/MainReadyForm.html)

### Materials and Tools

- Community Guide  
[www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html)
- Business Guide  
[www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html)
- Pandemic Flu: A Stress Management Guide  
[www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html)
- Special Health Care Needs Checklist  
[www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html)
- Videos  
[www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html)

### Avian Influenza

- [www.dhss.mo.gov/PandemicInfluenza/subcommittees/zoonotic/](http://www.dhss.mo.gov/PandemicInfluenza/subcommittees/zoonotic/)
- [www.cdc.gov/flu/avian/index.htm](http://www.cdc.gov/flu/avian/index.htm)

---

*An electronic copy of this document is available at [www.dhss.mo.gov/PandemicPlan/StatePlan.html](http://www.dhss.mo.gov/PandemicPlan/StatePlan.html)*

## Listing of Key Officials

---

Jane Drummond, Director, Missouri Department of Health and Senior Services

Nancie McAnaugh, Deputy Director, Missouri Department of Health and Senior Services

Glenda Miller, Director, Division of Community and Public Health

Kimberly O'Brien, Director, Division of Regulation and Licensure

Mary Menges, Interim Director, Center for Emergency Response and Terrorism

William Whitmar, II, Assistant Director, State Public Health Laboratory

Nanci Gonder, Chief, Office of Public Information

Arvids Petersons, Chief, Office of General Counsel

Scott Clardy, Administrator, Section for Disease Control and Environmental Epidemiology

Harvey Marx, Chief, Bureau of Communicable Disease Control and Prevention

Jeannie Ruth, Chief, Bureau of Immunization Assessment and Assurance

Aaron Winslow, State Pandemic Influenza Coordinator

Dr. Sarah Patrick, State Epidemiologist and Chief, Office of Epidemiology

Anne Lock, Director, Center for Local Public Health Services

Sue Heisler, Strategic National Stockpile Manager

Jenny Wiley, Coordinator, Disaster Readiness, Missouri Department of Mental Health

## Pandemic Influenza Plan – Vaccine Storage and Distribution

---

For more information, contact chair Jeannie Ruth at [Jeannie.Ruth@dhss.mo.gov](mailto:Jeannie.Ruth@dhss.mo.gov) or 573.751.6124.

### Introduction

The annual distribution and administration of vaccine for each winter's predicted strain of influenza is an "institutionalized" process involving both the public and private sectors. For this annual vaccination effort, the vaccine type is predicted by the Centers for Disease Control and Prevention (CDC) approximately 18 months before the anticipated influenza season. In recent years, manufacturers have predicted that 90-110 million doses would be available over a x to eight month period.

Except for some children eight (8) years of age and younger, effective immunization is generally achieved with a single dose of vaccine. Approximately 90% of the vaccine is directed toward high-risk individuals as defined by the Advisory Committee on Immunization Practices (ACIP). The next pandemic will pose a number of threats to this existing vaccine delivery and immunization process. Critical factors that will affect the current system of vaccine distribution include the following:

- The time period for the identification, production, and distribution of vaccine to prevent influenza will be greatly shortened, placing considerable burdens on all existing processes and procedures.
- Because time frames for planned production, distribution, and administration are shorter, significant shortages and delays in vaccine availability will likely arise.
- Limited allotments of vaccine will be shipped to states, probably on a weekly basis.
- In all likelihood, the target population for vaccination coverage will be extended well beyond the typical high-risk populations, with a potential goal of vaccinating the entire population.
- The influenza virus encountered during a pandemic will represent a new strain, expressing novel hemagglutinin (HA) and/or neuraminidase (NA) antigens. Thus, to maximize vaccine efficacy, it may be necessary to give a second dose of vaccine approximately 30 days after the initial administration.
- It is expected that the pandemic will be underway in the state, perhaps for a number of months, before adequate amounts of vaccine are made available. As such, the management and distribution of the vaccine may be complicated by staff and resource shortages, infrastructure disruptions, and under heightened scrutiny from elected officials, the media, and the general public.

As a result of these concerns and considerations, state and local public health providers must develop a strategic plan for the management of vaccine delivery and administration during a pandemic. That plan must ensure that the distribution and allocation of available vaccine is organized and coordinated so as to maximize the public's health and safety.

### Assumptions

When considering the challenges that must be addressed to ensure a smooth and efficient distribution of available vaccine, the Missouri Department of Health and Senior Services

(DHSS) has accepted CDC guidance and has based its plan for providing vaccine on the following assumptions:

- **Supply**

Based on guidelines issued by the CDC, it is understood that in the event of a pandemic, the total vaccine supply will initially be under the control of the federal government. This suggests that Missouri will be assigned an “allotment” of vaccine and that all distribution efforts will be based on that allocation.

- **Distribution Activity**

Actual distribution activities cannot begin until the CDC, in cooperation with manufacturers, can offer an expected date for delivery of vaccine.

- **Shortages**

The vaccine allotment may not be adequate to meet the state’s entire need for vaccine. Therefore, vaccine shortages are expected and may be so extensive that the supply will not be adequate to protect all individuals who have a critical role in managing the crisis.

- **Costs**

The state of Missouri and local communities will need to absorb the “up-front” costs associated with the purchase, delivery, and administration of vaccine. The CDC anticipates that national resources may be able to offset costs, although the exact level and nature of such resources is not yet clear. Federal resource assistance may include federal contracts for the purchase of vaccine, grants, or reimbursement activities to subsidize the costs associated with vaccine distribution. However, at a minimum, the state and its local public health communities should expect to absorb the costs associated with the redirection of personnel and should expect to use other financial resources to meet immunization objectives.

- **Liability**

Any activity related to liability issues and concerns that may be associated with instances of adverse reactions to vaccine administration will be the responsibility of the federal government. For inclusion in this federal liability coverage, the medical provider must ensure there is adequate and accurate documentation regarding the vaccine administration process and be able to identify vaccine recipients. This information must be entered into the state’s electronic immunization registry.

- **Centralized Control**

Appropriate management of the distribution and allocation of available vaccine will be under the oversight of DHSS. DHSS, in collaboration with partnered agencies, will assure appropriate security and safety of the vaccine in delivery, transport, and storage. DHSS will determine that local plans are in place for allocations and priority groups in accordance with federal guidance and establish ordering mechanisms and processes. An incident command system will be employed within the framework of the State Emergency Operations Plan and additional resource requests for supplies (including vaccine),



equipment, or personnel must be routed through the local emergency operations center to the state emergency operations center.

### **Interpandemic Infrastructure**

Missouri will base its emergency vaccine delivery, in large part, upon its current distribution system. This system is based in the Department of Health and Senior Services' (DHSS) Bureau of Immunization Assessment and Assurance (BIAA) and the contract vaccine distributor.

The current infrastructure is used to efficiently distribute childhood vaccine. In 2006, more than 100,000 doses of childhood vaccine were distributed by the DHSS's Vaccines for Children Program. This distribution program incorporates systems, policies, and procedures that can be adapted to assist the state in its pandemic vaccine distribution goals and objectives. Specifically, the current distribution system includes:

- A contract vaccine distributor for management of a state distribution system.
- Adequate coolers and supplemental power sources for proper storage of vaccine according to manufacturers' recommendations.
- Adequate supplies for repackaging vaccine as necessary.
- Established protocols and lines of communication.
- An existing communications infrastructure, which includes phone and fax accessibility for the community.
- An existing computer system for tracking inventory receipt and shipping.
- Trained professional and support staff capable of preparing shipments for up to 35 different sites per day. These shipments average 6,000 doses a day and ship three days a week.
- Experience with providing rapid, accurate service with the ability to complete and ship orders within two to three days of receipt.

### **Pandemic Vaccine Supply and Distribution**

- **Supply Needs versus Allocation**

Missouri had approximately 5.8 million residents in the year 2005. Faced with a novel influenza virus, estimates suggest that Missouri could need over 11 million doses of vaccine to fully immunize its population. However, due to anticipated shortages and delays in acquiring vaccine, the actual distribution will, in all likelihood, be substantially less than the amount needed for full population immunization.

- **Ordering and Distribution**

DHSS expects that the need will exceed vaccine availability, and as such Missouri will submit its order to the CDC for the maximum allocation of vaccine. The CDC will have the responsibility for ensuring that the manufacturer ships the vaccine to Missouri's contract vaccine distributor. If the manufacturers and the CDC allow multiple shipping sites, local public health agencies or previously identified community partners in selected large counties will be targeted for direct shipment. In order for facilities to be considered for direct receipt of vaccine, the following conditions must be met:

- The Local Public Health Agency (LPHA) must have adequate storage capacity to safely accept direct shipments.

- The epidemiology of the disease suggests that faster access to vaccine is needed in that community.
- The LPHA has developed a clear community-based plan to ensure vaccine will be quickly and properly redistributed throughout the county.

Supplies of vaccine would be shipped to a contract vaccine distributor. The Bureau of Immunization Assessment and Assurance (BIAA) will base its emergency vaccine delivery, in large part, upon its current distribution system. The BIAA will order vaccine for each vaccination site from the contract distributor. Vaccine will be shipped from CDC or manufacturer to the contract vaccine distributor who will be responsible to provide appropriate 24/7 security and will store vaccine and medications according to manufacturers' recommendations. A calibrated thermometer will be read and recorded twice daily by personnel experienced in vaccine preservation. The contract distributor will provide appropriate shipping materials and will ship vaccine directly to clinic sites, as ordered by BIAA. The contract distributor will maintain, on a real-time basis, the database inventory of each dose of vaccine that is transferred to each of the LPHAs designated to conduct the vaccination clinics. Temporary relocation of some existing inventory would be considered if capacity storage greater than one million doses were needed. Current activities are underway to identify the state's partners, such as local hospitals, that could assist with these short-term emergency storage needs. The BIAA and the contract vaccine distributor staff will focus on redistributing the flu vaccine as quickly as possible to local communities.

### **Local Public Health Agency Activity**

For the majority of Missouri's local health authorities (city and county), the local vaccine storage site will be based at the LPHA. These facilities have the experience and resources to store and to secure vaccine properly as well as to track its receipt and redistribution. As a local storage site, each LPHA will be responsible for developing a local plan that conforms to the priorities set forth below. Specifically, local public health agencies will be required to:

- Educate the local community in advance of a pandemic.
- Current activities are underway at DHHS to determine information regarding size of the vials, storage, and handling requirements. Once available, they will be shared with LPHAs, who will then identify the maximum amount of vaccine that can be accepted under emergency conditions for short-term storage.
- Define procedures to assure the biological safety and physical security of the vaccine within the local public health agency.
- Identify the community partners who will work with the LPHA and DHSS to administer vaccine to targeted populations.
- Define procedures to document accurately the receipt and redistribution of vaccine. This documentation should, at a minimum, indicate the amount and date the vaccine is received, as well as the amount, date, and method of redistribution to the identified community partner. (Note: The BIAA is currently working with the SNS Program Manager and awaiting further guidance from the CDC to determine the most expeditious manner of vaccine distribution documentation.)
- Develop a system for notifying those partners with as much advance notice as possible. Notice will include timing for the local availability of vaccine for delivery or pick-up.

- Assure that the redistribution of vaccine will occur prior to receipt of the next capacity shipment so that no vaccine is lost because of inadequate storage. In some counties where large provider groups can accept direct shipment of large amounts of vaccine, additional local distribution sites may be added. These additional shipping sites should be identified and included in the LPHA's plan. Examples of sites that local communities should consider for direct shipment from the contract vaccine distributor include:
  - Hospitals and medical centers.
  - Tertiary care centers with extensive outreach clinics and services.
  - Large provider practices serving over 1,000 people per month.
  - Large residential facilities with over 500 beds serving elderly, disabled, or other dependent populations.

The contract vaccine distributor will continue shipments of vaccine to LPHA and other identified community sites as necessary to address community needs. Shipments may occur weekly or monthly depending on vaccine supply and usage. If LPHAs need additional staff to manage excessively large shipments or to continue vaccine management and shipping activity for extended hours or over nontraditional workdays, these requests need to be forwarded through the local emergency operations center to the state emergency operations center.. When developing a redistribution plan, LPHAs should consider the following provider groups as potential partners for vaccine redistribution and administration:

- Federally funded health care centers and clinics.
- Private medical providers, coordinated through the local medical society.
- Urgent care centers, walk-in clinics, or managed care organizations.
- Hospitals with outpatient services and clinics.
- Hospital emergency facilities.
- Nursing homes and assisted living facilities.
- Paramedics and emergency management personnel.
- School health clinics, including colleges and universities.
- Commercial health care vendors (e.g., home health agencies).
- Local emergency response and support agencies, such as the Red Cross.

The recruitment of community partners will depend on the resources available to the community. In addition, the actual coordination with community partners may be further refined based on the populations that are targeted for actual disease management during a pandemic. In working with community partners that will administer vaccine during a pandemic, LPHAs must ensure that these partners understand their roles and the expectations associated with this partnership, including a cold chain and security agreement for the vaccine. Specifically, the community partner must be prepared to accept and store their allotment of vaccine and must ensure that vaccine administration is properly documented for accountability purposes in the event that reimbursement becomes available, though it is hoped that these community partners would consider such collaboration a public health contribution to the community, rather than a cost-reimbursable or profit-making activity.

During a pandemic, communities who believe they are not receiving their needed share of vaccine, or community members who believe they are not receiving the full cooperation of the LPHAs, will be directed to forward such concerns or requests through their local emergency

operations center. The Department will receive such concerns or requests into the Department Situation Room from the state emergency operations center for response.

### Targeted Recipient Groups for Vaccine

Tier	Subtier	Population	Rationale
1	A	<ul style="list-style-type: none"> <li>• Vaccine and antiviral manufacturers and others essential to manufacturing and critical support (~40,000)</li> <li>• Medical workers and public health workers who are involved in direct patient contact, other support services essential for direct patient care, and vaccinators (8-9 million)</li> </ul>	<ul style="list-style-type: none"> <li>• Need to assure maximum production of vaccine and antiviral drugs</li> <li>• Healthcare workers are required for quality medical care (studies show outcome is associated with staff-to-patient ratios). There is little surge capacity among healthcare sector personnel to meet increased demand</li> </ul>
	B	<ul style="list-style-type: none"> <li>• People &gt; 65 years with 1 or more influenza high-risk conditions, not including essential hypertension (approximately 18.2 million)</li> <li>• People 6 months to 64 years with 2 or more influenza high-risk conditions, not including essential hypertension (approximately 6.9 million)</li> <li>• People 6 months or older with history of hospitalization for pneumonia or influenza or other influenza high-risk condition in the past year (740,000)</li> </ul>	<ul style="list-style-type: none"> <li>• These groups are at high risk of hospitalization and death. Excludes elderly in nursing homes and those who are immunocompromised and would not likely be protected by vaccination</li> </ul>
	C	<ul style="list-style-type: none"> <li>• Pregnant women (approximately 3.0 million)</li> <li>• Household contacts of severely immunocompromised people who would not be vaccinated due to likely poor response to vaccine (1.95 million with transplants, AIDS, and incident cancer x 1.4 household contacts per person = 2.7 million people)</li> <li>• Household contacts of children &lt;6 month olds (5.0 million)</li> </ul>	<ul style="list-style-type: none"> <li>• In past pandemics and for annual influenza, pregnant women have been at high risk; vaccination will also protect the infant who cannot receive vaccine.</li> <li>• Vaccination of household contacts of immunocompromised and young infants will decrease risk of exposure and infection among those who cannot be directly protected by vaccination</li> </ul>
	D	<ul style="list-style-type: none"> <li>• Public health emergency response workers critical to pandemic response (assumed one-third of estimated public health workforce=150,000)</li> <li>• Key government leaders</li> </ul>	<ul style="list-style-type: none"> <li>• Critical to implement pandemic response such as providing vaccinations and managing/monitoring response activities</li> <li>• Preserving decision-making capacity also critical for managing and implementing a response</li> </ul>
2	A	<ul style="list-style-type: none"> <li>• Healthy 65 years and older (17.7 million)</li> <li>• 6 months to 64 years with 1 high-risk condition (35.8 million)</li> <li>• 6-23 months old, healthy (5.6 million)</li> </ul>	<ul style="list-style-type: none"> <li>• Groups that are also at increased risk but not as high risk as population in Tier 1B</li> </ul>
	B	<ul style="list-style-type: none"> <li>• Other public health emergency responders (300,000 = remaining two-thirds of public health work force)</li> <li>• Public safety workers including police, fire, 911 dispatchers, and correctional facility staff (2.99 million)</li> <li>• Utility workers essential for maintenance of power, water, and sewage system functioning (364,000)</li> <li>• Transportation workers transporting fuel, water, food, and medical supplies as well as public ground public transportation (3.8 million)</li> <li>• Telecommunications/IT for essential network operations and maintenance (1.08 million)</li> </ul>	<ul style="list-style-type: none"> <li>• Includes critical infrastructure groups that have impact on maintaining health (e.g., public safety or transportation of medical supplies and food); implementing a pandemic response; and on maintaining societal functions</li> </ul>
3		<ul style="list-style-type: none"> <li>• Other key government health decisionmakers (estimated number not yet determined)</li> <li>• Funeral directors/embalmers (62,000)</li> </ul>	<ul style="list-style-type: none"> <li>• Other important societal groups for a pandemic response but of lower priority</li> </ul>
4		<ul style="list-style-type: none"> <li>• Healthy people 2-64 years not included in above categories (179.3 million)</li> </ul>	<ul style="list-style-type: none"> <li>• All people not included in other groups based on objective to vaccinate all those who want protection</li> </ul>

## Definitions and rationales for priority groups as listed above

### Healthcare workers and essential healthcare support staff

- **Definition**

Healthcare workers (HCW) with direct patient contact (including acute-care hospitals, nursing homes, skilled nursing facilities, urgent care centers, physician's offices, clinics, home care, blood collection centers, and EMS) and a proportion of people working in essential healthcare support services needed to maintain healthcare services (dietary, housekeeping, admissions, blood collection center staff, diagnostic laboratory staff, etc.). Also included are healthcare workers in public health with direct patient contact, including those who may administer vaccine or distribute influenza antiviral medications, and essential public health support staff for these workers.

- **Rationale**

The pandemic is expected to have substantial impact on the healthcare system with large increases in demand for healthcare services. HCW will treat influenza-infected patients and will be at risk of repeated exposures. Further, surge capacity in this sector is low. To encourage continued work in a high-exposure setting and to help lessen the risk of healthcare workers transmitting influenza to other patients and HCW family members, this group was given high priority. In addition, increases in bed/nurse ratios have been associated with increases in overall patient mortality. Thus, substantial absenteeism may affect overall patient care and outcomes.

### Groups at high risk of influenza complications

- **Definition**

Individuals two (2) to 64 years old with a medical condition for which influenza vaccine is recommended, and all individuals six (6) to 23 months and over 65 years. Excludes nursing home residents and severely immunocompromised people who would not be expected to respond well to vaccination.

- **Rationale**

These groups were prioritized based on their risk of influenza-related hospitalization and death and also their likelihood of vaccine response. Information from prior pandemics was used whenever possible, but information from interpandemic years was also considered. Nursing home residents and severely immunocompromised people would be prioritized for antiviral treatment and/or prophylaxis and vaccination of healthcare workers and household contacts who are most likely to transmit influenza to these high risk groups.

### Critical infrastructure

- **Definitions and rationale**

Those critical infrastructure sectors that fulfill one (1) or more of the following criteria: have increased demand placed on them during a pandemic, directly support reduction in deaths and hospitalization; function is critical to support the healthcare sector and other emergency services, and/or supply basic necessities and services critical to support of life and healthcare or emergency services. Groups included in critical infrastructure are

needed to respond to a pandemic and to minimize morbidity and mortality, and include the following sectors:

- People directly involved with influenza vaccine and antiviral medication manufacturing and distribution and essential support services and suppliers (e.g., growers of pathogen-free eggs for growth of vaccine virus) production activities.
- Key government leaders and health decision makers who will be needed to quickly move policy forward on pandemic prevention and control efforts.
- Public safety workers (firefighters, police, and correctional facility staff, including dispatchers) are critical to maintaining social functioning and order, and will contribute to a pandemic response, for example, by ensuring order at vaccination clinics and responding to medical emergencies.
- Utility service workers (water, power, and sewage management) provide services essential to the healthcare system as well as to preventing additional illnesses aggravated by lack of these services.
- Transportation workers who maintain critical supplies of food, water, fuel, and medical equipment and who provide public transportation, which is essential for provision of medical care and transportation of healthcare workers to work and transportation of ill people for care.
- Telecommunication and information technology services critical for maintenance and repairs of these systems are also essential as these systems are now critical for accessing and delivering medical care and supporting all other critical infrastructure.
- Mortuary services will be substantially impacted due to the increased numbers of deaths from a pandemic, especially among the elderly, a growing segment of the population.

### **Public health emergency response workers**

- **Definition**

This group includes people who do not have direct patient care duties, but are essential for influenza surveillance, assessment of the pandemic impact, allocation of public health resources for the pandemic response, development and implementation of public health policy as part of the response, and development of guidance as the pandemic progresses.

- **Rationale**

People in this sector have been critical for past influenza vaccine pandemics and influenza vaccine shortages, especially as little surge capacity may be available during a pandemic.

### **People in skilled nursing facilities**

- **Definition**

Patients residing in skilled nursing facilities. Not included in this group are people in other residential settings (e.g., assisted living) who are more likely to be mobile, in a setting that is less closed, and have decentralized healthcare.

- **Rationale**

This group was not prioritized for vaccine because of the medical literature finding poor response to vaccination with outbreaks despite high vaccination rates. Other studies have

suggested that vaccination of healthcare workers may be a more effective strategy to prevent influenza in this group. Further, surveillance for influenza can be conducted in this group and antiviral medications used widely for prophylaxis and treatment. Ill visitors and staff should also be kept from visiting nursing home facilities during outbreaks of pandemic influenza. This strategy for pandemic influenza vaccine differs from the aggressive interpandemic vaccination strategy for nursing home residents. It takes into account several factors: 1) these populations are less likely to benefit from vaccine than other groups who are also at high risk; 2) other prevention strategies feasible for this group are not possible among other high-risk groups; 3) the overall morbidity and mortality from pandemic is likely to severely impact other groups of people who would be expected to have a better response to the vaccine; and 4) a more severe shortage of vaccine is anticipated.

### **Severely immunocompromised people**

- **Definition**

People who are undergoing or who have recently undergone bone marrow transplantation and others with severe immunodeficiency (e.g., AIDS patients with CD4 counts less than 50, children with SCID syndrome). The numbers of people in these categories is likely much smaller than the anticipated number assumed in tiering above, but sources for more specific estimates have not been identified.

- **Rationale**

These groups have a lower likelihood of responding to influenza vaccination. Thus, strategies to prevent severe influenza in this group should include vaccination of healthcare workers and household contacts of severely immunocompromised people and use of antiviral medications. Consideration should be given to prophylaxis of severely immunocompromised people with influenza antivirals and early antiviral treatment should they become infected.

### **Children less than 6 months of age**

- **Rationale**

Influenza vaccine is poorly immunogenic in children less than six (6) months and the vaccine is currently not recommended for this group. In addition, influenza antiviral medications are not FDA-approved for use in children less than one (1) year old. Thus, vaccination of household contacts and out-of-home caregivers of children less than six (6) months is recommended to protect this high-risk group.

### **Other Discussion**

There was substantial discussion on priority for children. Four (4) potential reasons were raised for making vaccination of children a high priority:

- At the public engagement session, many participants expressed their belief that children should have high priority for vaccination.
- Children play a major role in transmitting infection, and vaccinating this group could slow the spread of disease and indirectly protect others.



- Children have strong immune systems and will respond well to vaccine, whereas vaccination of the elderly and those with illnesses may be less effective.
- Some ethical frameworks would support a pediatric priority.

ACIP and NVAC did not make children a priority (other than those included in tiers, because of their underlying diseases [Tiers 1B and 2A] or as contacts of high-risk people [Tier 1C]) for several reasons:

- Healthy children have been at low risk for hospitalization and death in prior pandemics and during annual influenza seasons.
- It is uncertain whether vaccination of children will decrease transmission and indirectly protect others. Studies that show this impact, or mathematical models that predict it, rely on high vaccination coverage that may not be possible to achieve given limited supplies in a pandemic.
- The committees recognize that this is an area for further scientific work; that children may be a good target population for live-attenuated influenza vaccine (FluMist®) if it is available; and that education of the public will be needed to provide the rationale for the recommendations.

### **Reporting Adverse Events to Vaccination**

Suspected adverse reactions to vaccination can be reported by providers, vaccine recipients, or anyone with responsibility for the health care of vaccine recipients. They can be reported to the Vaccine Adverse Event Reporting System (VAERS) on the web at <http://www.vaers.org/>, by mail using the VAERS form, which is attached, or by calling 800-822-7967. The designated VAERS coordinator at the DHSS can obtain information on all reporting of adverse events by calling 866-628-9891.

### **General Considerations**

Both the public and private sector will be mobilized to administer available vaccine. The exact proportion of vaccine to be purchased and administered through the public versus the private sector is yet to be established. However, it is likely that the public sector will take responsibility, at a minimum, for vaccinating health care workers, other “local responders,” certain essential community servants, the poor, and the uninsured. The actual organization of the vaccination program, in both the public and private sectors, will have to be customized for each community and target group and will depend on the extent and availability of infrastructure and resources. Success of the pandemic vaccination program will be determined in large part by public confidence in the benefits of influenza vaccination and the strength of state and local planning.

### **References**

[Complete references to come]

## ***Attachment A – Mass Vaccination Plan Outline***

### **Introduction**

During the first four (4)- six (6) months after vaccine becomes available, CDC estimates that three (3) – five (5) million doses of vaccine per month will be available nationwide. If that supply were distributed to states according to population, Missouri would receive 60,000-100,000 doses of vaccine per month.

“At the onset of an influenza pandemic, DHHS, in concert with the Congress and in collaboration with the States, will work with the pharmaceutical industry to acquire vaccine directed against the pandemic strain. Distribution of pandemic vaccine to health departments and providers will occur via private-sector vaccine distributors or directly via manufacturer. (Only stockpiled pre-pandemic vaccine would be distributed by the federal government, if used.)”--- DHHS Pandemic Influenza Plan: Supplement 6 Vaccine Distribution and Use  
<http://www.hhs.gov/pandemicflu/plan/sup6.html>

### **Vaccine Logistics and Security**

#### **Contract Vaccine Distributor**

- Vaccine will be shipped from CDC or manufacturer to contract vaccine distributor.
- Contract vaccine distributor will be responsible to provide appropriate 24/7 security.
- The contract distributor will store vaccine and medications according to manufacturers' recommendations. A calibrated thermometer will be read and recorded twice daily by personnel experienced in vaccine preservation.
- Contract distributor will provide appropriate shipping materials.
- The Missouri Department of Health and Senior Services (DHSS), in cooperation with the State Emergency Management Agency (SEMA), Local Public Health Agencies (LPHAs), and other partners, will determine where and how much vaccine will be shipped to each LPHA.
- The Bureau of Immunization Assessment and Assurance (BIAA) will order vaccine for each vaccination site from the contract distributor.
- Contract distributor will ship vaccine directly to clinic sites, as ordered by BIAA.
- Contract distributor will maintain, on a real-time basis, the database inventory of each dose of vaccine that is transferred to each of the LPHAs designated to conduct the vaccination clinics.

#### **LPHA clinic sites**

- LPHAs will provide security for the vaccine during delivery and dispensing of the vaccine. LPHAs will ensure that they have a workable security plan in place to continue dispensing operations. DHSS will review security plans during the monitoring process for the pandemic influenza contract and provide technical planning assistance.

- LPHA clinic sites will be established throughout the state. LPHAs must be willing to assure that vaccine will be maintained in a secure, appropriate storage environment.
- DHSS site managers will be assigned as described herein.
- Refrigeration devices will be maintained according to manufacturers and DHSS recommendations.
- Vaccine inventories will be tracked into a DHSS database.
- Vaccine balances will be tracked daily.

### **Clinic Operations and Management**

DHSS will conduct site visits by trained staff with LPHAs to provide technical advice and quality assurance of documentation for proper vaccine handling, dating, storage, and overall maintenance.

### **Vaccine Safety Monitoring, Reporting, Treatment And Patient Referral**

- Division of Community and Public Health (DCPH) has established a legal basis for reporting adverse events.
- DHSS and the LPHAs will utilize CDC's clinic guidelines, screening forms, and fact sheets to educate individuals concerning possible adverse events.
- DCPH workgroup will identify information that must be captured to provide appropriate follow-up of primary vaccines, including adverse reactions. The workgroup will utilize federal disease reporting forms to capture this information.
- CHIME will modify immunization and disease reporting components of the Missouri Health Strategic Architectures and Information Cooperative (MOHSAIC) data system to track primary vaccines and adverse events.
- DHSS will educate medical care providers and LPHAs regarding adverse reactions and reporting requirements.
- DHSS will utilize a toll-free telephone number to enhance reporting of adverse reaction.
- Medical care providers will report to DHSS vaccine adverse reactions.
- LPHAs will provide follow up in consultation with DHSS and with logistical support from DHSS as needed.
- DHSS will report adverse reactions and investigation findings to CDC.

### **Resources**

Department of Health and Human Services <http://www.hhs.gov/pandemicflu/plan/>

# Pandemic Influenza Plan – Community Containment

---

For more information, contact Eddie Hedrick at [Eddie.Hedrick@dhss.mo.gov](mailto:Eddie.Hedrick@dhss.mo.gov) or 573.522.8596.

## INTRODUCTION

Early in an influenza pandemic, vaccine will not be immediately available for the prevention of infection. Most experts expect it to take a minimum of six to eight months, after a pandemic begins, to manufacture an adequate supply to provide nationwide coverage. In addition, antivirals such as Tamiflu and Relenza are likely to be in short supply and their usefulness in preventing people from becoming infected is limited. For antivirals to be useful for prophylaxis the medication must be taken throughout the period that influenza is present in the community. There is also the possibility that large-scale use of these medications may induce resistance in the pandemic strain of influenza. Therefore, the limited amount of antivirals present early in a pandemic will likely be used for treatment of high-risk, sick patients. Treatment will reduce suffering and death, but will only modestly affect community transmission.

For these reasons a menu of mitigation strategies known as non-pharmaceutical interventions (NPI) have been proposed to attempt to slow down the spread of the pandemic strain of influenza until such time that a vaccine becomes available. The Missouri Department of Health and Senior Services (DHSS) recognizes the importance of these measures and will employ those shown to be effective to the fullest extent possible, in a consistent as possible manner, to meet the overall objectives of the department during a pandemic. The first objective is to reduce morbidity and mortality, the second is to prevent social disruption, and lastly, to minimize economic damages. Examples of NPIs that could be employed include voluntary isolation of cases, voluntary quarantine of household contacts, social distancing measures, cancellation of large public gatherings, school closures, and infection control measures such as hand hygiene, cough etiquette, and the appropriate use of personal protective equipment such as masks. In the past, various combinations of these measures have been used under epidemic and pandemic circumstances in an attempt to control the spread of influenza. Many mitigation strategies could have a serious impact on the ability of the health system to deliver adequate care and could have potentially adverse consequences for the provision of essential services. Others could result in significant disruption of the social functioning of communities and result in possibly serious economic problems. The scientific evidence base for these measures is limited, however the recommendations below are based on a thorough review of the facts that are available, common sense, the practicality of implementation and the ability for people to adhere to the recommendations.

In preparing these strategies many individuals, agencies, and organizations, from the public and private sectors were consulted. Examples include: large and small businesses, faith-based organizations, law enforcement, emergency response, education experts, government agencies, public health agencies, mental health, home health, hospitals, long-term care, media (including television, radio, newsprint and magazines), laboratorians, public representatives, legal authorities, legislators, and others. In developing the school policies, the Department of Homeland Security's School Safety Subcommittee, which contains representatives from 26 school-focused organizations, participated and approved the policies. These groups included the

Department of Secondary and Elementary Education (DESE), Missouri School Board Association (MSBA), Missouri Association of School Nurses (MASN), School Administrators, Parent Teacher's Association, and other key leaders in the education sector. DHSS brought together leaders from the business community from all over Missouri to assist in developing practical guidelines for businesses large and small. Special pandemic planning booklets were developed and disseminated to small and medium businesses with limited resources. A business toolkit to supplement the planning booklet was developed to assist small to medium businesses in developing pandemic plans. These tools were placed on the DHSS website for downloading. Campaigns have been launched to make sure this information is widely disseminated to the state's partners. The products that have been developed to educate the community, businesses, and others have been placed on the DHSS web site at [www.dhss.mo.gov/pandemicinfluenza/](http://www.dhss.mo.gov/pandemicinfluenza/). These products include toolkits, PowerPoint presentations, DVDs, booklets, pamphlets, posters, and other written materials. Every effort is being made to reach out and partner with those affected by this endeavor.

The evidence to support various practices recommended in this section have been assigned a category based on the available scientific evidence supporting or not supporting the practice.

Category 1 – Sufficient scientific evidence exists to support the practice and it should definitely be implemented.

Category 2 – Sufficient scientific evidence does not exist to categorically state the practice must be implemented but it should be considered.

Category 3 – Scientific evidence does not exist to promote the practice but evidence does exist to recommend against the practice. Category 3 primarily means that a practice should not be considered.

*These various measures are summarized in the attached Intervention Decision Matrix (Attachment A) and the Categories are reflected as follows: Category 1, I = Implement; Category 2, C = Consider; Category 3, NR = Not Recommended.*

## **PLANNING ASSUMPTIONS**

- Preparations should be geared toward a 1918 level pandemic. In Missouri, this would extrapolate to (without effective interventions) approximately 1.8 million ill; 900,000 seeking outpatient care; 198,000 hospitalizations; and 38,610 deaths. (*Source: Centers for Disease Control and Prevention [CDC]*)
- An influenza pandemic of this magnitude will affect all segments of society, and could overwhelm health care and mortuary systems, severely disrupt commerce and economic activity, breakdown normal societal patterns, and cause psychosocial trauma.
- An effective response to such a pandemic will require a coordinated community-wide effort from local, state, and federal agencies, private businesses, individual citizens, elected officials, education and religious leaders.
- The clinical disease attack rate will be 30 percent in the overall population. Illness rates will be highest among school-aged children (about 40 percent) and decline with age.

Among working adults, an average of 20 percent will become ill during a community outbreak.

- Medical solutions (e.g., vaccine, antiviral medications, hospital capacity) to control an influenza pandemic may be limited, especially early in a pandemic.
- Education, public health interventions, basic public health measures, and social controls must be relied upon initially to slow the spread of the disease within Missouri.
- Infection control (e.g., proper handwashing, and respiratory hygiene) strategies will be used to slow the disease, along with social distancing measures.
- Employee absenteeism could reach as high as 30-40 percent.
- Absenteeism will be the result of employees becoming ill, staying home to care for sick family members, children being sent home from school, and from people refusing to go to work out of fear.
- People will be asked to voluntarily stay home if they are ill. However, many will not have adequate emergency food and medical supplies so they are unlikely to comply without adequate access to these items.
- Schools may be asked to close for substantial periods of time and children would be asked to stay home.
- School closures are likely to create unintended consequences that will need to be addressed prior to closures.

## **NON-PHARMACEUTICAL MITIGATION MEASURES**

### **I. Individual Measures**

#### **Handwashing**

Influenza viruses survive on the hands for less than five minutes, but regular handwashing is a common sense action that should be widely followed after coming into contact with ill persons or soiled surfaces. When hands are soiled it is important that soap and water be available for handwashing. Alcohol-based hand hygiene products do not work well in the presence of organic matter but offer an alternative for situations when hands are not visibly dirty.

#### **Cough Etiquette**

Covering one's mouth when coughing, preferably while using disposable tissues or coughing into the elbow, may be of some value in lowering the risk of transmission of influenza viruses and should become routine practice now, before a pandemic occurs.

#### **Environmental Cleaning**

Survival studies have documented that Influenza A and B can survive under the right conditions on hard, non-porous surfaces for approximately 24-48 hours and on cloth, paper, or tissue for 8-12 hours. However, low-level disinfectants are very effective in removing and killing these viruses. Ethyl or isopropyl alcohol, chlorine (100ppm; 1:500 dilution of 5.25 percent sodium hypochlorite), Iodophors, phenolics quaternary ammonium compounds and hydrogen peroxide are all effective disinfectants for killing influenza viruses. Cleaning with

soap and water is a pre-requisite to disinfection, therefore soiled surfaces should be cleaned with soap and water prior to disinfection or using a cleaner/disinfectant.

### **Personal Protective Equipment (PPE)–masks/respirators**

The preponderance of evidence points to the influenza virus being transmitted by contact and via large droplets. Adults can shed influenza virus one day before symptoms appear and up to five days after onset of illness. Therefore, the selective use of masks (when close to an ill person) may not effectively limit transmission in the community and the emphasis should be focused on cough etiquette (see above) for persons with respiratory symptoms whenever they are in the presence of another person, including at home, school, work or other public places.

There is no scientific evidence available to support the use of respiratory protection in the community, school or work by healthy persons. In spite of this, it is acknowledged that fear will drive some members of the public to resort to wearing masks during a pandemic. Public health professionals must recognize that there is no evidence to support the practice but should not discourage it. In the May 2007 Interim Guidance from the CDC ([www.pandemicflu.gov/plan/community/maskguidancecommunity.html](http://www.pandemicflu.gov/plan/community/maskguidancecommunity.html)) it states that facemasks should be considered for use by individuals who enter crowded settings, both to protect their nose and mouth from other people's coughs and to reduce the wearer's likelihood of coughing on others. The time spent in crowded settings should be as short as possible. Until such time as new data are available, CDC also recommends that selected individuals who provide care for a sick person in which close contact is inevitable consider using an N-95 respirator, if available. Additionally, providing information on the importance of distancing being a more appropriate strategy than masking, would also be helpful. Whenever possible, rather than relying on facemasks and respirators, close contact and crowded conditions should be avoided during an influenza pandemic.

Persons who are diagnosed with influenza or who have a febrile respiratory illness should remain at home until the fever is gone and the cough is resolving to avoid exposing other members of the public. If such symptomatic persons cannot stay home during the acute phase of their illness it does make sense for them to wear a surgical mask when it is necessary to interact with others. (*An N-95 respirator would be inappropriate for this purpose and would not provide any additional protection.*) In addition, masks are recommended for use by symptomatic, post-partum women while caring for and nursing their infants.

### **Recommendations**

- Good handwashing, cough etiquette, and environmental cleaning are always recommended public health practices. These practices are currently promoted by DHSS and measures, such as public information campaigns to increase awareness, will be intensified during a pandemic. (Category 1)
- In general, respiratory protection is **not** recommended for general use by the public. (Category 2)
- Facemasks should be considered for use by individuals who enter crowded settings, both to protect their nose and mouth from other people's coughs and to reduce the wearer's



likelihood of coughing on others. The time spent in crowded settings should be as short as possible. (Category 2)

- Until such time as new data are available, CDC also recommends that selected individuals who provide care for a sick person in which close contact is inevitable consider using an N-95 respirator, if available. (Category 2)
- Persons with signs and symptoms of respiratory infection should wear a surgical mask when close interaction with others is necessary. (Category 2)

## II. Community-Based Measures

Statewide consistency regarding the use of quarantine and isolation, school closures, and use of PPE in the event of an influenza pandemic is of paramount importance for maintaining social stability, protecting public health, and minimizing economic impacts. The timing or “Triggers” for implementing various interventions is also important. The information below has been assembled to assist local communities in assuring that these issues are approached in a reasonable, consistent manner based on the best available evidence.

### A. Triggers and Duration of Interventions

The timing of various community mitigation strategies will influence their effectiveness. Implementing these measures prior to a pandemic may result in economic and social hardship without public health benefit and may result in compliance fatigue. No one is really sure of the appropriate timing for initiation of these interventions. However, in Missouri the primary activation trigger for initiating interventions will be the arrival and transmission of pandemic virus. This trigger is defined as “a laboratory-confirmed cluster of infection with a novel influenza virus and evidence of community transmission (i.e., epidemiologically linked cases from more than one household).” Prior to this trigger, public health officials will initiate “Alerts” and “Standby” triggers based on the current WHO Phase, United States Stage, and severity of the disease in the United States. Determining the likely time frame for this progression is difficult and would involve knowing 1) the speed at which the pandemic is progressing and 2) the segments of the population most likely to have severe disease. Because pandemic influenza is expected to move rapidly throughout the country it is likely that only a short time period will occur from the time of the Alert to the actual activation of the non-pharmaceutical mitigation strategies. Currently the state will use the CDC document published in February 2007, **Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States**, to assist in guiding decision making. Federal guidance during the phasing of the pandemic will assist as well. The complexity of the issue however may make modifications necessary based on state and local resources. Communities and local public health agencies (LPHAs) will be kept abreast of the status of the novel agent in the United States and Missouri utilizing the communication structures outlined in the DHSS All-Hazards Communication Plan, Annex K.1.6 Public Information. A general approach to implementing various individual strategies can be found in **Attachment A-Pandemic Influenza Selected Intervention Measures Decision Matrix** at the end of this document. The duration of implementation of non-pharmaceutical mitigation strategies will depend upon many factors such as the severity of the pandemic and the total duration of the pandemic wave in the community. There are no clear-cut triggers, therefore the duration will be determined based on factors such

as the excess mortality, case fatality ratios or other surrogate markers. The CDC document mentioned above will assist the state and local communities in making this decision.

## **B. Quarantine**

This is likely to have a limited impact in preventing the transmission of pandemic influenza due to the short incubation period of the virus, the ability of persons with asymptomatic disease to transmit virus, and the possibility that early symptoms among persons with a novel influenza strain may be non-specific, delaying recognition and implementation of containment. However, early implementation of quarantine when pandemic influenza is first detected in the United States and when the scope of the outbreak is focal and limited may slow geographic spread. Examples of specific instances where quarantine may be helpful:

- For the first suspected or confirmed cases of novel influenza in Missouri. For example, suspected or confirmed case(s) of avian influenza A (H5N1) in person(s) who have traveled to an H5N1 affected country and have been exposed to sick poultry (either through handling or eating poultry products) or a laboratory-confirmed or epidemiologically linked human case(s) of H5N1 influenza;
- Suspected or confirmed cases of avian influenza A (H5N1) or another novel strain of influenza in travelers on airplanes, trains, or buses about to arrive in Missouri;
- Suspected or confirmed cases of avian influenza of any type in persons with known exposure to sick poultry or birds in Missouri;
- Clusters of avian influenza A (H5N1) or another novel strain of influenza in small, well defined settings, such as a military base; and
- Cases of laboratory exposure to avian influenza A (H5N1) or influenza viruses with the potential to cause a pandemic (e.g., influenza A H2N2).

Later in a pandemic when disease transmission is occurring in communities around the state, individual quarantine is much less likely to have an impact and likely would not be feasible to implement. There are no historical or scientific studies that support large-scale quarantine (*cordon sanitaire*) measures of groups of possibly infected persons for extended periods in order to slow the spread of influenza. The negative consequences of large-scale quarantine are so extreme that this mitigation strategy should be eliminated from serious consideration.

## **Recommendations**

- Early enforced quarantine of small numbers of people when the pandemic virus is first introduced in the state may be helpful and should be considered in examples cited above. (Category 2)
- Large-scale enforced quarantine (*cordon-sanitaire*) measures late in a pandemic should not be considered. (Category 3)
- Voluntary self-quarantine of persons exposed to persons who are ill with pandemic influenza is recommended. (Category 1)

### C. Isolation

Isolating symptomatic influenza patients either at home or in the hospital, is probably the most important measure that can be taken to reduce the transmission of influenza and slow the spread of illness within a community. Those who are sickest will likely be the ones to seek medical care. They are also considered the most contagious. Due to the large volume of ill persons in a pandemic, hospitals and other health care agencies are likely to be overwhelmed. Therefore, voluntary self-isolation and self-quarantine of exposed persons will play an enormous role in slowing the spread of the virus. (*Hospital isolation is also covered in the Health Care Annex.*)

Voluntary self-isolation – simply put, a policy of asking those who are ill and do not need specialized medical treatment to “*stay home if you are ill*” will do more good than any other interventions in a pandemic.

There are a number of considerations that could deter people from voluntarily staying at home that must be dealt with before this strategy is implemented.

- Basic medical and food supplies would have to be available. See [www.dhss.mo.gov/Ready\\_in\\_3/PanFluCommunityGuide.pdf](http://www.dhss.mo.gov/Ready_in_3/PanFluCommunityGuide.pdf)
- Because of economics it may be difficult to persuade those with no paid sick leave not to go to work. See [www.dhss.mo.gov/pandemicinfluenza/businesses](http://www.dhss.mo.gov/pandemicinfluenza/businesses).

Screening of ill individuals and contacts in the home – Early in a pandemic when there is limited transmission in a community, LPHAs may go into homes or other settings to screen persons for signs and symptoms of influenza and identifying their contacts. The practicality of doing this screening will depend upon an LPHA’s staffing and resources. This practice will therefore vary in different localities.

### Recommendations

- Ill persons should be asked to voluntarily stay at home during their illness (Category 1) *Note: Mechanisms to support the request for ill persons to stay home must be in place if this strategy is to be successful. Therefore the development of systems to provide food, supplies, and medicine is a priority and is currently being developed.*
- Large-scale enforced isolation practices late in a pandemic should not be employed. (Category 3)

### D. Social Distancing Measures

Social distancing strategies are non-medical measures intended to reduce the spread of disease from person-to-person by discouraging or preventing people from coming in close contact with each other. These strategies could include: closing schools; closing non-essential agency functions; implementing emergency staffing plans to increase telecommuting; flex scheduling; and other options; and closing public assemblies or after school activities. The actual social distancing measures that will be implemented during various phases of a pandemic will be commensurate with the actual severity of the pandemic and the societal impact.

### **III. Schools**

School systems represent an important element in pandemic influenza preparedness for several reasons, particularly since children easily transmit infectious diseases to one another due to their close proximity and their general lack of awareness and compliance with basic hygienic measures. Therefore in a pandemic, long-term and widespread absenteeism may occur due to the lack of immunity. Until a vaccine becomes available, students, teachers, and staff would be highly susceptible to a novel virus. This type of absenteeism occurs on a smaller basis annually due to seasonal influenza outbreaks. However, in a pandemic the impact would be much greater and the longer duration of the outbreak would create unique challenges. Probably the most controversial mitigation strategy related to schools is the concept of school closure during a pandemic. Currently, there is no consensus as to the effectiveness of this strategy. Models have suggested that if implemented early in a pandemic, school closures may slow the spread. However, these models have serious flaws and have not considered the negative impacts of school closures. Historic data is only marginally instructive because there are significant differences in society, health, and health care. Population density (nationally, locally, in schools, and even in family homes) is very different. The speed of travel has increased dramatically and the ability of adults and children to move about and co-mingle with others changes interaction dynamics from previous pandemics. In addition, many historical accounts of the effectiveness of school closures on limiting the spread of infection in previous pandemics have been mixed. The concept of closing schools to limit the transmission of pandemic influenza has profound implications for the education of students and for the economy.

While it may be necessary to eventually close schools, the goal of every community should be to keep schools open and safe whenever feasible. If closures are anticipated, it is important that the negative impacts of the closures on society, students, and staff be minimized by pre-planning for such an event. Communication structures must be enhanced and triggers for both closing and opening schools must be understood (see below). As stated above, in a pandemic it is essential that communities across the state be consistent in how school closings are handled and closing decisions should be based on the best science available and in collaboration with all stakeholders (students, parents, teachers, superintendents, state and local health authorities, etc.). The following policies have been developed by the Homeland Security's Safe Schools Subcommittee to assist in this endeavor.

#### **A. Overview of the Following School Policies**

The policies outlined below should be integrated as part of the school district's overall crisis plan. Besides being effective in an influenza pandemic the same policies will be helpful in averting many other crises.

School districts can take steps prior to a pandemic that will reduce the spread of all communicable diseases. The first step is education. Students, staff and community need to understand how infectious diseases are transmitted. The second step is training. Along with being taught how disease is transmitted, staff and students must be taught techniques to reduce the chance of transmission, such as proper handwashing, how to cover a cough or sneeze, standard precautions, the importance of annual flu vaccinations, etc.

Educational materials and tools for this purpose have been developed and can be found in

the DHSS **Pandemic Influenza Community Preparedness Toolkit** at <http://www.dhss.mo.gov/PandemicInfluenza/PanFluCommToolkit.html>.

Staff and students must be encouraged to stay home when they, or other members of the household are ill with flu-like symptoms, and maintenance staff must be taught how to properly clean and disinfect.

These policies also cover what the school district should do in case prevention methods fail. Most districts are prepared to deal with short-term school closures. However, in the case of a pandemic, schools may be closed for months at a time. School districts have to be prepared so that they can continue to communicate with staff, students, and the community and deliver education and other services to students.

In addition, school districts must also be prepared for the psychological impact of a pandemic. People may be fearful but those who have been educated will be less so. Fears will be abated and tensions eased if the students, staff, and the community know the district has a plan. The period after a pandemic is also important. School districts must be prepared to deal with the return of grieving students and staff.

Many children receive their only meals, or only hot meals, at school. In the case of a long-term school closure, these students may not have enough to eat. This policy encourages school districts to explore the possibility of continuing food service in some manner. It may require bulk purchasing and storage of certain supplies and may not be possible for some school districts. Currently a committee is in the process of developing model food acquisition and distribution structures for individual communities to use when developing plans for their specific community needs in a pandemic.

The following information is provided to assist Missouri school districts in planning for an influenza pandemic.

## **B. Pandemic Influenza School Closure Policies**

Goal: To keep schools open and safe whenever possible.

### **1. School Closure Trigger Points**

- Student absenteeism – when it is not economically prudent to keep the school open.
- Teacher/staff absenteeism – when the number of staff available to supervise and instruct students drops below what is necessary to maintain a safe learning environment.
- To protect the public health and safety – when advised to close by state or local health/safety authorities.

In a pandemic, short-term school closures (one to two weeks) will occur as a result of absenteeism and the ability to function as a school, much like what occurs during normal influenza season. The practicality of closing schools for longer periods of time (up to 12 weeks at a time according to CDC's "Interim Pre-pandemic Planning

Guidance” of February 2007) is questionable and carries serious adverse consequences. For example, for working parents, school serves as a form of day care and, in some areas, a source of meals for children from lower income families. A portion of the state’s workforce would be unable to go to work as long as children were out of school. Heightened absentee rates could cripple essential services (health care, first responders, utility companies, businesses, etc.). Teachers might not be paid and a great number of hourly workers (mall and fast food employees, school janitorial, security, kitchen staff, bus drivers, etc.) would face particular hardship. Prior to considering whether to close, it is important that every school district be prepared ahead of time to deal with these adverse consequences.

## **2. Authority to Close Schools**

- In a pandemic, where closures would affect multiple jurisdictions and there is a need for consistency throughout the state, schools, child care centers, etc. may be closed and/or opened **only** by order of the director of DHSS or his/her designee. See 19 CSR 20-20.050 (3).
- The School Superintendent would have authority to close and/or open school for absenteeism due to School Closure Trigger Points as noted above.
- In Missouri, LPHAs would have the authority to close and/or open schools in their counties for the purpose of protecting the public health as noted in the safety trigger points above.

Schools may be closed to all staff and students or just students. If schools are closed only to students, staff members are expected to work regular schedules or use appropriate leave.

The superintendent may cancel all activities on district property by outside groups even if some schools in the district remain open. When a school is closed, activities scheduled at that school, including use by community groups, will be canceled. Activities held at another location that involve students and staff from a closed school may cancel at the discretion of the building principal in consultation with local health authorities and the school nurse.

Schools will be reopened by the superintendent but in cases where schools were closed by DHSS or an LPHA, only the director of DHSS, his/her designee, or the LPHA may authorize the reopening of schools. Schools will be reopened only when the situation that caused the schools to be closed has sufficiently abated.

## **3. Recommendations for School Closings**

- School closings for the purpose of protecting the public health and safety will be directed by LPHAs and local school authorities. However, in a pandemic where closures would affect multiple jurisdictions, the director of DHSS will direct the closures. (Category 2)
- School closings for student or teacher absenteeism should occur as necessary and the LPHA and school authorities will direct the closings. (Category 2)

- As stated in the information above, the effectiveness of closing schools to slow a pandemic is in question and will depend upon specific circumstances. School districts should have plans in place to:
  - close schools as necessary as well as plans for reopening them.
  - recognize trigger points for closing and opening schools.
  - understand lines of authority in the community/state for closing and opening schools.

### **C. School Surveillance and Reporting**

In a pandemic, enhanced surveillance of influenza cases is imperative to track the disease and to assist in making mitigation decisions.

Notice of school closing, reopening or cancellation of activities will be publicized through local media, the school district's web site and the school district's information line.

In Missouri, the school superintendent or designee is charged with monitoring reportable diseases in schools and reporting to health authorities in accordance with law. See 19 CSR 20-20.020 (8).

During a school closing, the school nurse will be responsible for compiling data relating to the health of individuals. The nurse will be responsible for appointing and training a staff member to receive and compile this health information in situations where the nurse is unavailable. If possible, another nurse will be selected before any non-medical personnel are used. Other staff members will be involved as necessary to monitor the health and academic progress of students and other staff members.

- <http://www.pandemicflu.gov/plan/school/schoolchecklist.html>
- <http://www.ed.gov/admins/lead/safety/emergencyplan/pandemic/planning-guide/planning-guide.pdf>
- <http://www.ed.gov/admins/lead/safety/emergencyplan/pandemic/planning-guide/basic.pdf>

### **D. School Restrictions**

If incidences of contagious disease are high, the school nurse or designee may recommend that the superintendent impose appropriate social distancing rules, such as limiting or prohibiting individuals who are not students, staff and contractors providing services to the district from being in district facilities.

- <http://www.pandemicflu.gov/plan/school/preschool.html>
- <http://www.hhs.gov/pandemicflu/plan/sup4.html#s4-V>
- <http://www.pandemicflu.gov/plan/school/schoolchecklist.html>
- <http://www.dhss.mo.gov/ChildCare/ControlOfCommunicableDiseases.pdf>

### **E. School Communications**

In an emergency such as a pandemic, information will generally flow from DHSS to the Commissioner and/or the Deputy Commissioner of DESE who are responsible for coordinating the state agency response. It would then be disseminated to superintendents,



who would share with principals and then to school nurses. However, this chain may differ slightly in some communities (not all have school nurses on site) and will depend upon local plans. In Post Secondary Schools (PSS) the information would flow from DHSS to the Commissioner to the Public Information Officer (PIO) and out to the individual PSS contacts. The Administrator of the DHSS Section for Child Care Regulation would provide information to child care centers.

DESE and Higher Education will communicate information at all levels of a pandemic, including recovery, using their respective PIO or Commissioner for both media relations and communicating with their constituents.

The superintendent or designee will develop a communication system for the exchange of information between the school district and staff, students, parents and others when schools are closed. The system will be used to monitor the health of students and staff, deliver instruction and support services, and to provide health and other appropriate information

The system will include a variety of methods such as Internet, digital answering machines, e-mail and traditional mail, fax, etc. and designate individuals responsible for receiving and compiling information received. Each school district relies on their local resources for notifying parents of dismissal from classes or child care, communication during dismissal, and re-opening. For example, in St Louis an automated voice mail system delivers a voice message to the students, families, and staff phone numbers on file. Smaller school districts may use phone trees or other methods of communication. Each school district is responsible for having such a system in place.

In an emergency DESE will communicate with local educational authorities through blanket e-mails to superintendents, the DESE website, and follow-up e-mails to supervisors. Redundancy is accomplished through the Missouri Alert Network, phone trees, and media (radio, TV, newspapers).

## **F. Continuity of Education**

In the case of a school closing due to a declared pandemic, every effort will be made to continue instruction through alternative methods. In case contemporaneous instruction is not possible, instructional staff will prepare a grade level or subject area supplemental unit of studies that students and parents can implement with minimal assistance from staff. District administration in cooperation with instructional staff will oversee the development and collection of these units and determine an appropriate delivery system.

In the case of a long-term school closing, the school board may waive local graduation requirements.

Continuity of education planning is primarily a local responsibility, and activation of continuity of education plans will vary by school because their size and assets differ. The triggers for activating these specific plans should be contained in the all-hazards emergency plan of the individual schools. DESE will assist in delivering educational

content that would be provided to students across the age spectrum primarily through the technological resources described here.

Using technological resources DESE has developed several initiatives, which will assist in providing continuity in education during an emergency such as a pandemic. Two current examples of these initiatives include the “Virtual School Initiative” and “SuccessLink”. A description of each is provided below:

**1. Virtual School Initiative**

Missouri was the 25<sup>th</sup> state to implement the virtual public school system by the state board of education. The virtual public school offers instruction in a virtual setting using technology, Intranet, and/or Internet methods of communication. Any student, kindergarten through grade twelve, who resides in Missouri, is eligible to use this system regardless of the student’s physical location. In a pandemic, this system would be well suited to reach large numbers of homebound children and provide a system that would help to ensure the continuity of education.

**2. “SuccessLink “**

This is a valuable resource for Missouri educators. Funded through DESE and other public and private funds, SuccessLink disseminates and promotes the best teaching ideas throughout Missouri. Teaching activities and exemplary programs are recognized and shared freely throughout the state.

The SuccessLink web site has a database filled with lessons written by Missouri teachers. Lessons are searchable by subject/grade, Show Me Standards, Grade Level Expectations and keywords. Lessons are performance-based, aligned to state standards and most have an assessment component.

Many other valuable programs are offered through SuccessLink. These include Proven Practices for Student Success, SuccessLink Technology Initiatives, SuccessLink Curriculum Initiatives, Missouri Teacher Mentoring Blog Community and [www.moteachingjobs.com](http://www.moteachingjobs.com). Special Education training will be provided through the same networks with the assistance of the special education division.

Post Secondary Schools will utilize online interactive lessons through a variety of sites, as well as through their website. Educational content for PSS will depend upon local resources and will be coordinated by individual schools.

**G. School Confidentiality**

Staff health information will be kept confidential and only released in accordance with school board policy and law. Student health information will be shared with state and local health officials in accordance with the Family Educational Rights and Privacy Act (FERPA) and state law. School districts may provide individually identifiable student information to local or state health authorities in conjunction with reporting a Category 1 disease under the health and safety emergency exception of FERPA. Individually identifiable student information received from any source, including state and local health

authorities, will be maintained and disclosed in accordance with FERPA and school board policy.

#### **H. School Maintenance**

The superintendent or designee will develop a cleaning/disinfecting checklist according to guidance from DHSS and the United States Department of Health and Human Services (DHHS) to be completed by staff responsible for building maintenance. DHSS recommends that school authorities mandate staff or contracted janitorial services follow this guidance to best protect health in the school.

#### **I. School Materials and Supplies**

Handwashing conveniences will be available to students, staff, and visitors to school district facilities. The superintendent will ensure that each district facility is equipped with adequate cleaning and Environmental Protection Agency (EPA) approved disinfecting materials and that each bathroom in the school district is equipped with soap, hot water, and a system to dry hands. Waterless hand sanitizer may be used only when it is impractical to provide soap and hot water.

- [http://www.cdc.gov/germstopper/materials/home\\_work\\_school.pdf](http://www.cdc.gov/germstopper/materials/home_work_school.pdf).
- <http://www.pandemicflu.gov/plan/school/preschool.html>

The superintendent will investigate whether the school district can continue to provide meals to students on free and reduced lunch when schools are closed. To determine if such a program is practically and financially feasible, the superintendent will consult with food service personnel regarding purchasing supplies, facility staff to determine storage options, and local emergency planners to develop a preparation and delivery system.

#### **J. School Staff Leave**

Staff members who are ill or have members of their household ill with pandemic influenza are encouraged to stay home to promote healing and reduce the risk of infecting others. In the case of school closure due to a pandemic or other significant health event, the school board may provide additional paid leave to staff members based on the length of the closure and the financial condition of the school district. However, staff members who are not ill may only use available leave in accordance with school board policy.

#### **K. School Board Meetings**

The school board president and superintendent will establish alternative methods for holding meetings that do not require face-to-face contact. Any method must be implemented in accordance with the Missouri Sunshine Law.

#### **L. School Counseling**

In the case of a pandemic, students and staff will face illness and death of friends and family. School district counselors, school social workers, and school psychologists must be prepared to provide support to students and staff when schools reopen after a pandemic. In addition, counselors must develop support programs that can be accessed while schools are closed. These programs will be part of the overall emergency plan and

be developed in conjunction with the communication system used to monitor the health of students and staff and deliver instruction and support services.

#### **M. Emergency Use of School Facilities**

In the case of an influenza pandemic or other health event, the school district's facilities may be used as staging areas, shelters or to otherwise serve the community in accordance with school board policy and law. The superintendent will maintain an accurate inventory of property that may be useful in an emergency situation including, but not limited to, medical supplies, food, water, ice, vehicles, tools, communication devices, generators, building materials, cleaning supplies, and bedding. The use of K-12 facilities for emergencies is governed at the local level. DESE can provide contact phone numbers and information for groups who are interested. The use of post secondary school facilities during an emergency is also controlled locally.

#### **N. Department of Elementary and Secondary Education (DESE) and Post Secondary School Coordination (PSS)**

In a pandemic the person(s) responsible for coordinating the pandemic flu response and the person the Governor would contact for:

DESE – Commissioner of Education and/or the Deputy Commissioner. (Currently (5/08) Bryan Howard serves as the DESE representative to the state's pandemic flu coordinating team.

PSS – representative that serves on the state level pandemic planning team is the Director of Administration and/or the Office Service Assistant.

#### **IV. Workplace Policies**

One of the primary needs during a pandemic will be to maintain essential governmental, community and business continuity. It is possible that 30 percent of the workforce may be absent due to illness and it may be difficult to maintain adequate staffing for many important functions. Many essential services may be disrupted if large numbers of public health, law enforcement, first responders, health care, communications, transportation, and public utility personnel are not able to carry out critical functions due to illness. It is, therefore, extremely important that continuity of service plans be in place to minimize the impact. For additional pandemic influenza resources for businesses visit <http://www.dhss.mo.gov/PandemicInfluenza/Businesses.html>.

#### **V. Education of the Public**

Community preparedness can best be accomplished when the public is well informed about the dangers of pandemic influenza and the benefits of the containment measures. To this end the DHSS has developed a website ([www.dhss.mo.gov/PandemicInfluenza/](http://www.dhss.mo.gov/PandemicInfluenza/)) where information and educational tools regarding all aspects of pandemic influenza can be found. In addition, educational booklets, DVDs, posters, signs and Power-point presentations have been widely disseminated throughout the state through LPHAs, schools, faith-based organizations, businesses, and government agencies. Many of these tools are being used

presently to assist communities in local planning. Their use will be expanded in pre-pandemic phases and throughout a pandemic as appropriate.

LPHAs will be responsible for educating the public when cases of pandemic influenza arise in their communities and they will monitor compliance with prevention strategies such as voluntary isolation and quarantine along with infection control strategies such as hand-washing and respiratory hygiene in order to determine where further education is necessary. Contact tracing early in a pandemic will be done by LPHAs until no longer practical. The decisions regarding whether to perform contact tracing and how to manage the patients will be made on a case by case basis and will be made by LPHAs and/or DHSS. With limited personnel and the short incubation period of influenza, the feasibility of conducting contact tracing will be limited in most communities. Further information about pandemic influenza surveillance can be found in the Surveillance, Investigation and Data/Information Sharing annex.

Educating the public regarding voluntary isolation and quarantine will include information regarding the risk of disease development, protection of others, and the duration of isolation or quarantine. In order for these measures to be effective, LPHAs and communities in general, are being instructed to support persons in isolation or quarantine by developing local systems to assure that food, water, supplies, and medicines are available to those who are homebound. Special considerations must be given to children and those with special needs. Attachment B is a sample checklist to assist LPHAs to evaluate the residence to ensure the home environment meets the individual's ongoing physical, mental and medical needs.

## **VI. Public Gathering Restrictions**

The effectiveness of canceling public gatherings has not been established. However, it seems prudent that consideration be given to closing any planned public gathering during a pandemic as a method of limiting person-to-person contact. Decisions as to when to cancel public gatherings and under what circumstances will be made by LPHAs consistent with direction from DHSS.

If a public gathering is necessary, the following guidelines are appropriate:

- The facility where the gathering is held should be cleaned thoroughly utilizing normal cleaning products. Use clean water and detergent to scrub and sanitize, paying special attention to frequently touched and horizontal surfaces.
- Promote hand hygiene and cough etiquette.
- Space individuals at least three feet apart during large gatherings. Increasing the number of gatherings and limiting the number of attendees is one way of accomplishing this. Use audio/visual technology to broadcast the presentations to other rooms or buildings, allowing the groups to be split into smaller numbers.
- Encourage sick people to stay home.

### **Recommendations**

- Canceling public gatherings during a pandemic may be recommended when public health authorities feel that such gatherings would lessen the spread of pandemic influenza.

Cancellations will generally be directed by LPHAs consistent with directions from DHSS. (Category 2)

- If public gatherings are essential during a pandemic, the above guidelines should be followed. (Category 2)

## **VII. Public Transportation**

Public transportation systems that bring many people together in close proximity to one another provides an excellent opportunity to transmit infectious agents. It is essential at all times that vehicles be kept clean and sanitized to protect the public and transportation workers. In a pandemic this becomes even more important. In planning for a pandemic, owners and operators of public transportation should make sure that policies and procedures for the appropriate cleaning/sanitizing of surfaces which come into contact with passengers, as well as prevention strategies for both workers and the public regarding handwashing, respiratory hygiene, and other infection prevention strategies are in place. These policies and procedures should be consistent with State and local guidance and be based on the most current scientific information available. Since most public transportation is locally owned and operated this information can best be obtained from LPHAs or found on the DHSS Pandemic Influenza web page in the Community Containment annex ([www.dhss.mo.gov/PandemicPlan/CommunityContainment.pdf](http://www.dhss.mo.gov/PandemicPlan/CommunityContainment.pdf)).

The following guidelines can be utilized to assist owners and operators of public transportation to develop policies and procedures for reducing the risk of infection while operating or riding in a public transportation vehicle:

### **A. Training and Education:**

- Transportation Personnel – should be provided training and education regarding how influenza virus is transmitted and the appropriate precautions to take to reduce the risk to themselves and the public. This information can be found in the first section of this document where handwashing, respiratory hygiene, and other infection prevention measures are discussed. They should also receive training regarding proper cleaning/sanitizing products and methodologies. They should be aware of the signs and symptoms of influenza infection and recognize the need to stay home when they are ill during the pandemic.
- Public education – advisories and public education materials should be provided which outline proper procedures to protect themselves and other from exposure to influenza. Samples of materials that can be used for these purposes can be obtained from LPHAs or found in the DHSS **Pandemic Influenza Community Preparedness Toolkit** found at <http://www.dhss.mo.gov/PandemicInfluenza/PanFluCommToolkit.html>. These materials provide information about pandemic influenza, hand hygiene, respiratory hygiene and basic infection control messages. There are brochures, posters, fact sheets, DVDs, and a variety other guidance documents available in this toolkit. LPHAs will also provide current local information to make sure the information is applicable to the current situation.

## **B. Cleaning/Sanitizing Methods and Frequency:**

One of the properties that make the influenza virus able to pass easily from person to person is its ability to survive on hard, non-porous surfaces for approximately 24-48 hours and on cloth, paper, or tissue for 8-12 hours. It is then potentially transferred from the surface to people's hands, which then carry the bug to the nose, mouth or eyes where it can then cause infection. Besides handwashing, thorough cleaning of contaminated surfaces is one of the most effective methods of reducing spread. *IMPORTANT- special techniques and products are not necessary. The influenza virus is very susceptible to most good detergents. Therefore the most important issue is to make sure that the cleaning gets done. The thoroughness and frequency of cleaning during a pandemic will greatly reduce the risk of infection from these sources.*

- **Technique:**
  1. Put on rubber gloves
  2. Thoroughly clean the surfaces with warm water and detergent.
  3. Rinse
  4. Let air dry
- **Frequency:**

The surfaces which come into contact with passengers such as the benches, seats, arm rests, hand rails should be cleaned whenever visibly soiled and at least before or after each shift.

More information for public transportation business owners can be obtained through the LPHA or on the DHSS web site at

<http://www.dhss.mo.gov/PandemicInfluenza/Businesses.html> .

## **VIII Return to the Workplace or to School**

In order to decrease the chance of spreading pandemic influenza to others, people who have been diagnosed with pandemic influenza by a health care provider **or** who believe that they have pandemic influenza based on symptoms of illness should follow the following guidelines to determine when it is safe to go back to work.

- **Stay home and away from others** as much as possible for at least 7 days after your symptoms first appeared and when your fever has been gone for 48 hours without taking fever-reducing medicines such as acetaminophen (Tylenol), and ibuprofen (Motrin, Advil). Studies show you are most contagious and likely to spread influenza virus to others for 7 to 10 days after your first symptoms appeared and for up to 48 hours after your fever has ended.
- **If you are immunosuppressed, consult with your health care provider** for guidance on when you may return to your workplace or school and on possible treatment with antiviral medications. Being immunosuppressed means your body's immune system may be weaker than normal. For example, from cancer or cancer treatment, organ or bone marrow transplants, HIV/AIDS, or from treatment with drugs such as steroids. Studies show that an immunosuppressed person who is infected with influenza may be able to transmit virus for a longer time than a person who is not immunosuppressed.



- **If you were or are taking antiviral medications for treatment of influenza, consult with your health care provider as to when to return to your workplace or school.** Antivirals for influenza are prescription drugs such as oseltamivir (Tamiflu) and zanamivir (Relenza). While no one should return to work or school until their fever has been gone for 48 hours, antiviral drugs may shorten the period when you are contagious (capable of transmitting influenza virus), allowing you to return earlier.

## **IX. International Travel**

The Missouri Department of Health and Senior Services will effectively develop and implement travel recommendations based on assessment of risks to travelers and/or CDC international travel guidelines.

## **REFERENCES**

### **Non-Pharmaceutical Mitigation Strategies**

1. Institute of Medicine. Modeling Community Containment for Pandemic Influenza-A Letter Report. The National Academy Press. (2006)  
<http://www.nap.edu/catalog/11800.html>
2. Inglesby, TV, Nuzzo TO, Henderson DA. Disease Mitigation Measures in the Control of Pandemic Influenza. Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science. Vol 4, NO. 4, 2006, Pg 1-10

### **Quarantine**

3. Ferguson NM et al. Strategies for containing an emerging influenza pandemic in Southeast Asia , *Nature* advance online publication; published online 3 August 2006
4. HHS Pandemic Influenza Plan. Nov. 2005: Principle #7 Page SB28
5. Jordon EO. Epidemic influenza: a survey. Chicago: Amer. Med. Assoc. JID 1919;25:74-95.
6. Journal of Emerging Infectious Diseases, Jan., 2006 Vol.12 No.1
7. Medscape Pulmonary Medicine 2006;10:1 @2006 Medscape Posted 2/23/06. Dr. Barwick Eidex
8. Tomianovic D. CDC COCA Conference Feb 2006
9. WhitelawTH. The practical aspects of quarantine for influenza. Can Med Assoc. 1919;9:1070-4, McGinnis JP. The impact of epidemic influenza, Canada, 1981-1919. Hist Pa Assoc. 1977;19:120-41, Sattenspiel L Herring DA. Simulating the effect of the spread on pandemic flu in central Canada. Bull.Math Biol.2003, 65:1-26
10. WHO Writing Group. EID Vol12, No1, Jan 2006 Non-Pharmaceutical Public Health Interventions

### **Respiratory Protection**

11. American Federation of state, County and Municipal Employees, AFL-CIO, Dec. 21, 2005 letter for Elaine Chao at DOL.
12. Bridges et al, 2003; DHHS, 2005b; Wong and Yuen, 2006, IOM, 2006
13. CDC Michael Bell, MD. Conversation with Eddie Hedrick and Denise Graham (National APIC), June, 2006; WHO Influenza Pandemic Preparedness Plan, 2006.



14. HHS, Nov. 2005 Pandemic Influenza Plan-Infection Control Pg S4-19.
15. Saldado et al. Lancet infec. Diseases 2002; 2:145-55, Bridges et al. CID 2003-37(15 Oct.)
16. WHO Vol 12, No1, Jan. 2006

### School Closures

17. Armstrong C, Hopkins R. An epidemiologic study of the 1920 epidemic of influenza in an isolated rural community. Public Health Rep. 1921; 36:1671-702
18. British Royal Society, The Academy of Medical Science. Pandemic Influenza: Science to Policy. November 2006
19. Ferguson N. Imperial College, London Use of epidemic models in planning pandemic mitigation., Oct. 26, 2006 presentation to IOM.
20. Haber M, Shay SH, Davis XM, et al Presentation number 528/104). International Conference on Emerging Infectious Diseases. March 21, 2006.  
<http://www.abstractsonline.com/viewer/view/Abstract.asp> Loney J. School closings may not work in bird flu study. Reuters. March 21, 2006)
21. Heymann A, Chodick G, Reichman B, Kokia E, Laufer J. *Influence of school closure on the incidence of viral respiratory diseases among children and on health care utilization.* *Pediatr Infect Dis J.* 2004;23:675-7
22. Inglesby, TV, Nuzzo TO, Henderson DA. Disease Mitigation Measures in the Control of Pandemic Influenza. Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science. Vol 4, NO. 4, 2006, Pg 1-10
23. Institute of Biosecurity, St Louis School of Public Health
24. Jordan EO. Epidemic influenza: a survey. Chicago: American Medical Association; 1927
25. Markel H et al. (272 page report) Univ. of Michigan "A Historical Assessment of Non-Pharmaceutical Disease Containment Strategies Employed by Selected U.S. Communities During the Second Wave of the 1918-1920 Influenza Pandemic"
26. McGinnis JP. [The impact of epidemic influenza, Canada, 1918-1919.](#) Hist Pap Can Hist Assoc. 1977;19:120-41. Sattenspiel L, Herring DA. [Simulating the effect of quarantine on the spread of the 1918-19 flu in central Canada.](#) Bull Math Biol. 2003; 65:1-26
27. NACCHO/IDSA report Oct.26, 2006 to IOM
28. Neuzil KM, Hohlbein C, Zhu Y. [Illness among school children during influenza season: effect on school absenteeism, parental absenteeism from work, and secondary illness in families.](#) Arch Pediatr Adolesc Med. 2002; 156:986-91
29. Patterson KD. [The influenza epidemic of 1918-1919 in the Gold Coast.](#) J Afr Hist. 1983; 24:485-502
30. World Health Organization. [Expert committee on respiratory virus disease: first report.](#) World Health Organ Tech Rep Ser. 1959; 58:1-59.
31. Community Strategy for Pandemic Influenza Mitigation, February 2007  
<http://pandemicflu.gov/plan/community/commitigation.html>
32. Interim Public Health Guidance for the Use of Facemasks and Respirators in Non-Occupational Community Settings during an Influenza Pandemic. May 2007.  
[www.pandemicflu.gov/plan/community/maskguidancecommunity.html](http://www.pandemicflu.gov/plan/community/maskguidancecommunity.html)
33. Household Responses to School Closure Resulting from Outbreak of Influenza B, North Carolina <http://www.cdc.gov/eid/content/14/7/pdfs/08-0096.pdf>
34. Public Response to Community Mitigation Measures for Pandemic Influenza  
<http://www.cdc.gov/eid/content/14/5/778.htm>

Attachment A

Pandemic Influenza  
Selected Intervention Measures  
Decision Matrix

		Interventions															
		Quarantine/Isolation				Closures				Protection				Vaccine			
		Enforced Quarantine	Enforced Isolation	Voluntary Quarantine	Voluntary Isolation	School Closure (Affected)	School Closure (Preemptive)	Public Assembly Prohibition	Business Closures	Respiratory Protection (i.e., handwashing, cover cough)	Respiratory Protection (mask use)	Personal Hygiene	Border Closures/ Movement Restrictions	Antiviral (Prophylaxis)	Antiviral (Treatment)	Public Healthcare	Vaccination
Situation - Novel Influenza/Avian Influenza	Interpandemic Period (Phases 1,2)																
	Pandemic Alert Period (Phase 3)																
	Case/Outbreak AI, Travel into Missouri, Exposure From Animal Out of State	NR	C	I	C	C	NR	NR	NR	NR	C	I	I	NR	I	I	NR
	Case/Outbreak AI, Exposure From Animal Missouri	I	I	I	C	C	NR	NR	NR	NR	I	I	I	NR	I	I	NR
	Pandemic Alert Period (Phase 4)																
	Small Cluster Pandemic Strain Novel Virus Out of State	NR	NR	NR	NR	NR	NR	NR	NR	NR	C	I	NR	NR	NR	NR	NR
	Pandemic Virus Arrives in Missouri by Mass Transit (bus, plane, train)	C	I	I	C	C	NR	NR	NR	NR	C	I	I	NR	I	I	NR
	Pandemic Alert Period (Phase 5)																
	First Missouri Cases Community Setting	C	C	C	I	I	C	C	C	C	NR	C	I	I	O	I	C
	First Missouri Cases Controlled Setting (i.e., military base)	I	I	I	C	C	C	C	C	C	NR	C	I	I	O	I	C
	Widespread Localized Outbreaks In-State	NR	C	C	I	I	C	C	C	C	NR	NR	I	I	O	I	NR
	Pandemic (Phase 6)																
	Regional In-State Outbreaks <15% morbidity <1% mortality	NR	NR	NR	I	I	C	C	C	C	NR	NR	I	I	O	I	NR
	Regional In-State Outbreaks >25% morbidity >2% mortality	NR	NR	NR	I	I	I	I	C	I	C	NR	I	I	O	I	NR
	Regional In-State Outbreaks Targeting School Age Children	NR	NR	NR	I	I	C	I	I	C	NR	NR	I	I	O	I	C
	Statewide Pandemic (Phase 6)																
	Statewide Outbreaks Targeting Healthy Working Age Adults >25% morbidity >2%	NR	NR	NR	I	I	I	C	C	C	C	NR	I	I	O	I	NR
	Statewide Outbreaks <2% Mortality Targeting Typical High Risk Groups	NR	NR	NR	I	I	NR	NR	NR	C	NR	NR	I	I	O	I	C
	Statewide Outbreaks >30% Morbidity >5% Mortality	NR	NR	NR	I	I	I	I	I	I	NR	I	I	I	O	I	C

Use When Available

NR = Not Recommended  
I = Implement  
C = Consider  
O = Optional

January 26, 2007

## Attachment B

### HOME ISOLATION/QUARANTINE CONSIDERATIONS (Checklist)

	Basic utilities (water, electricity, garbage collection, and heating or air-conditioning as appropriate)
	Basic supplies (clothing, food, hand hygiene supplies, laundry services)
	Mechanism for addressing special needs (e.g., filling prescriptions)
	Mechanism for communications, including telephone (for monitoring by health staff, reporting of symptoms, gaining access to support services, and communicating with family)
	Accessibility to healthcare workers or ambulance services
	Access to supplies such as thermometers, fever logs, phone numbers for reporting symptoms or accessing services, and emergency numbers
	Access to mental health and other psychological support services

**PERSONS WHO ARE ILL WITH PANDEMIC INFLUENZA SHOULD VOLUNTARILY STAY HOME WHILE ILL TO PROTECT OTHERS FROM THE INFECTION.**

**IN ADDITION, FAMILY MEMBERS AND OTHERS WHO HAVE BEEN EXPOSED TO PERSONS WITH KNOWN PANDEMIC INFLUENZA SHOULD ALSO STAY HOME TO PROTECT OTHERS.**

The above checklist can be used to evaluate the residence of those who are ill/exposed to determine if they have adequate supplies and services to assist them while home bound.

Local Health Department phone number \_\_\_\_\_

Local Hospital phone number \_\_\_\_\_

Local Ambulance phone number \_\_\_\_\_

## Pandemic Influenza Plan – Health Care Systems Readiness

---

For more information, contact chair Kathy Hadlock at [Kathy.Hadlock@dhss.mo.gov](mailto:Kathy.Hadlock@dhss.mo.gov) or 417.452.3181.

### **Abstract**

The Health Care Systems Readiness section addresses aspects of health care surge capacity and management during a pandemic. The goal of this plan is to prepare health care systems to provide medical care in the event of pandemic influenza as well as other large-scale disasters while maintaining other essential medical services in the community during and after the event.

During the interpandemic and pandemic alert periods, Department of Health and Senior Services (DHSS) will emphasize the development of institutional plans, infrastructural support, and policies/protocols and drills for responding to influenza pandemic. Additionally, DHSS will assist planning for regional coordination between various components of the health care system and local, state, and federal governments. It is important that local health care systems including hospitals, primary care centers, home health agencies and long-term care facilities coordinate to allow care for the sickest patients and to maximize resources.

During the pandemic period, DHSS will work in close coordination with other governmental agencies involved in the Unified Command Structure and with associations and organizations that participate in the Health Resources and Services Administration (HRSA) Bioterrorism Hospital Preparedness Program (BHPP).

The development of this annex involved professionals with expertise in various facets of the health care arena.

Much of the information/recommendations found in this document comes directly from governmental agencies, including the HHS Pandemic Plan and New York City Department of Health and Mental Health Pandemic Influenza Preparedness and Response Plan. Refer to the Bibliography for complete reference material information.

The recommendations suggested in this annex are intended to be synergistic with those of the other pandemic influenza planning efforts. Throughout the Health Care Systems Readiness Annex, reference has been made to other Pandemic Influenza Response Plan annexes to assure coordination. This plan does not take the place of individual facility and community planning.

Health care entities incorporated into this planning effort include:

- Hospitals
- Non-hospital settings including primary care centers, out-patient clinics and community health centers.
- Emergency medical services
- Home care agencies
- Long-term and other residential care facilities

## Challenges

- In the absence of the government addressing liability concerns regarding altered standards of care, many of the hopes and expectations of this plan may not be fulfilled.
- Lack of tools, sample Memorandum of Agreements, Executive Orders, and policies.
- Lack of personnel to staff surge capacity needs.
- Assurance of coordination between the health care system entities.
- ESAR-VHP will only be effective if personal liability, institutional liability and worker's compensation are addressed.
- Dissemination of Health Alerts to appropriate persons in a timely manner.

## Planning Assumptions

Appropriate infection control and hygiene practices are our first line of defense in minimizing the spread of pandemic. The following summarizes basic infection control principles.

- **Modes of transmission**

Large droplet transmission has been considered a major route of influenza transmission. However, data directly demonstrating large droplet transmission of influenza in human outbreaks is indirect and limited.

Direct-contact transmission of influenza may occur through either direct skin-to-skin contact or through indirect contact with virus in the environment. Transmission via contaminated hands and fomites has been suggested as a contributing factor in some studies. However, there is insufficient data to determine the proportion of influenza transmission that is attributable to direct or indirect contact.

The relative contribution of airborne transmission is uncertain. Regarding small-particle aerosols there is no evident that influenza transmission can occur across long distances (e.g. through ventilation systems) or through prolonged residence in air. However, transmission may occur at shorter distances through inhalation of small-particle aerosols, particularly in shared air spaces with poor air circulation. It is likely some aerosol-generating procedures (endotracheal intubation, suctioning, nebulizing treatment) could increase the potential for dissemination of droplet nuclei in the immediate vicinity.

- **Control of transmission in healthcare facilities**

- Strategies may include any combination of the following:
  - Vaccination of patients and healthcare personnel.
  - Early detection.
  - Use of anti-virals to treat ill persons.
  - Isolation of infectious persons or cohort units.
  - Use of appropriate barrier precautions and administrative measures such as restricting visitors, educating patients, staff and cohorting healthcare workers assigned to outbreak units.

- **Basic infection control principles**

The symptoms of influenza include fever, headache, myalgia, prostration, coryza, sore throat and cough. Otitis media, nausea and vomiting also are commonly report among



children. Typical influenza (or “flu-like”) symptoms, such as fever, may not always be present in elderly patients, young children, or persons with underlying illnesses.

- The basic infection control principles for preventing the spread of pandemic influenza in a health care setting are based on the following overarching guidelines.
  - Limit contact between infected and non-infected persons.
  - Protect persons caring for influenza patients in health care settings from contact with the pandemic influenza virus.
  - Contain infectious respiratory secretions.
- All hospitals need to be prepared as there will be no designated pandemic influenza hospitals.
- Absenteeism could rise to 40%, severely crippling critical services including first responders, health care workers, etc.
- Hospitals may experience shortages of beds, medications, supplies, and staff.
- Hospitals and other health care entities will not be able to rely on external resources beyond what they have already prepared locally. Using the Incident Command System, additional resources, if available, will be coordinated through State Emergency Operations Center (SEOC) and DHSS’ Department Situation Room (DSR).
- Basic hygiene/cough etiquette and infection control strategies may have to be reiterated and encouraged.
- The EMSsystem will be used as a data collection tool that will allow agencies to anticipate potential shortages in beds, staff, and equipment.
- Biosense and Electronic Surveillance System for the Early Notification of community-Based Epidemics (ESSENCE) will be used for syndromic data collection.
- The Modular Emergency Medical System (MEMS) concept will be used to manage the large number of patients that will be expected during an influenza pandemic. (Refer to Attachment A)
- Communication and coordination among providers at the local and regional level cannot be over-emphasized.
- It is essential that plans are exercised and equipment tested routinely, including periodic unannounced tests.
- Health care entities will place their EMSsystem in locations throughout the organization that are easily accessible to all appropriate personnel.
- An effective health care response to pandemic influenza will require utilizing non-hospital based health care providers outside of hospital settings in order to decrease the likelihood of surges that would overwhelm hospital capability.
- Physicians in all health care settings must be fully integrated into plans for the health care response.

## **Background**

In 2002, the HRSA’s BHPP was created through Section 3191C-1 of the Public Health Services Act to enhance the ability of hospitals and supporting health care systems to prepare for and respond to bioterrorism and other public health emergencies. This funding has allowed the DHSS, working with federal, state and local partners to build upon the planning and infrastructure efforts of Missouri’s health care entities.

The DHSS' Bioterrorism Hospital Preparedness Program contracts with Missouri Hospital Association (MHA), Missouri Primary Care Association (MPCA), St. Louis Area Regional Response System (STARRS) through East West Gateway Council of Governments, Mid-America Regional Council (MARC), MO-1 Disaster Medical Assistance Team (DMAT), and Missouri Alliance for Home Care (MAHC) to develop and enhance preparedness capacity and capability. Memorandums of Agreement have also been established with the Missouri Board of Nursing (BON) and Department of Mental Health (DMH) and collaboration efforts are ongoing within the DHSS' Division of Community and Public Health (DCPH), Division of Regulation and Licensure (DRL) and the State Public Health Laboratory (SPHL) to support preparedness capacity and capability for hospitals and other health care entities.

Current and prior DHSS efforts to improve all-hazards and pandemic preparedness activities include:

- Missouri is divided into nine terrorism-planning regions designated by the letter "A-I". Each region consists of a cluster of geographically configured counties. These regions are consistent with the Missouri State Highway Patrol (MSHP) and State Emergency Management Agency (SEMA) and Department of Homeland Security (DHS) regions. Divided among these regions is a service population of some 5.6 million not counting significant tourism in some areas. Surge capacity target numbers have been identified for each region.
- The DHSS' DSR is staffed by a duty officer 24 hours a day, seven (7) days a week, and monitors the day-to-day emergency preparedness of the state. A toll-free number is available around the clock for emergencies or disease reporting. Twelve (12) stations, including a medical surge station, are activated in the DSR during a terrorist event or public health emergency to assure an effective, coordinated response.
- A Hospital Planning and Preparedness Levels (HPPL) structure (formerly the hospital tiered structure) has been developed, and updated annually, as appropriate. The HPPL structure includes three tiers of biological, chemical, radiological/nuclear and Incident Command System (ICS)/Communication emergency services and criteria for each level, including the needs of adults, pediatrics and other special need populations. Capability defined within these criteria is based upon the BHPP benchmarks.
- Using the Modular Emergency Medical System (MEMS) concept, surge support trailers have been purchased and equipped in order to open Alternative Care Sites (ACS) on hospital campuses or at other locations across the state as necessary.
- MO-1 DMAT is a fully operational Disaster Medical Assistance Team under the sponsorship of the St. Louis Medical Society. The team is both a Federal and State asset to Missouri. The system continues to develop and enhance three (3) Regional (Divisional) Response Teams located in three (3) strategic locations around the state: St. Louis, Kansas City and Springfield/Branson areas.
- In March 2005, DHSS in collaboration with the Missouri Division of Professional Registration and Board of Nursing launched the Emergency System for Advanced Registration of Volunteer Healthcare Professionals (ESAR-VHP), called Licensed Emergency and Disaster Registry (LEAD-R). Registered Nurses and Licensed Practical Nurses have had the opportunity to volunteer using this web-based system. Plans are to provide this opportunity to other professionals including physicians, pharmacists and behavioral health workers. This program will be activated during times of emergency to coordinate additional staff.

- All hospitals will have the capacity to maintain at least one (1) suspect highly infectious disease case in negative pressure and at least one (1) in each region will be able to support the initial evaluation and treatment of at least ten (10) adult and pediatric patients at a time in negative pressure isolation.
- The EMSysystem is a web based statewide program that detects possible outbreaks by monitoring the number of admissions and ambulance diversions at hospitals. The system provides a linkage for hospitals to obtain instant messages and health alerts. The BHPP is collaborating with the EMSysystem to develop a statewide patient tracking system and to increase the number of specific screens that are available.
- The Missouri Telehealth Network (MORENET) connects rural hospitals, mental health clinics, Federally Qualified Health Centers and other medical service providers via an interactive videoconferencing network/conferencing network that will support the delivery of disaster preparedness communications and educational programming. The system provides a mechanism to remotely provide clinical services during disasters and will be used to link hospitals, CDC and other entities in other states.
- Hospitals, Emergency Medical Services, and Federally Qualified Health Centers have received personnel protective equipment.
- In order to assure secure redundant communication systems, the following have been purchased based on the Hospital Planning and Preparedness Levels structure and standardized purchase ordering to assure interoperability: Satellite telephones; 550 Motorola HT1250 16-channel programmable handheld radios; Motorola MTR 2000-97 channel and 100 watt base station radios. Regional communication hubs with interoperable and redundant communication systems have been identified in each region.
- Competency based education has been provided to hospitals and other health care entities through contracts with MHA, STARRS, MAHC and MARC.
- DMH staff provides behavioral health education as well as communication tools and other resources.
- DHSS SPHL has conducted a hospital laboratory assessment and provided training on packaging and shipping of diagnostic and infectious materials and on the interpretation of gram stains.
- Surveillance systems allow all rural and urban hospitals, Emergency Medical Systems (EMS) and the Poison Control Center to report data that is suggestive of influenza to their local and state health departments on a 24 hours a day, seven (7) days a week basis.
- Health Alerts are sent to health care providers on acute public health issues through the EMSysystem.
- Hospitals and Federally Qualified Health Centers participate in the annual full-scale Strategic National Stockpile (SNS) exercise, as well as conduct individual and regional exercises throughout the year.
- A Special Needs Population Task Force, Steering Committee, and Pediatric Advisory Committee meet periodically to develop plans and resource materials for disaster response related to the needs of the special populations.
- Hospitals and Public Health Combined Regional Guides are in place.
- Pandemic exercises will be conducted.
- Telehealth/video conferencing available in hospitals and Community Health Centers.
- DHSS conducts regular meetings with NBHPP program contractors to update them on issues of concern related to pandemic preparedness plans.



- Educational materials are being produced for patients, family members, and visitors regarding respiratory and hand hygiene.
- Yearly hands on trainings are provided for hospital personnel regarding personnel protective equipment, and equipment and supplies that have been purchased using NBHPP funds.

## Statistics

- 20 Federally Qualified Health Centers and 100 satellite centers.
- 123 acute care hospitals
- 6 children hospitals
- 23 designated trauma centers
- A designated pediatric trauma center
- 216 ambulance services
- 1,169 Long-term Care facilities
- 193 Home Health Agencies
- 98 Ambulatory Surgical Centers
- 14 Psych hospitals
- 5 Rehab hospitals

The FluSurge (Refer to Attachment B) estimates provided include the following assumptions based on CDC recommendations and methodologies:

- A 35% attack rate; most experts and planners are assuming at least a 30% attack rate (note: this percent may be decreased to 15% or 25% on the FluSurge tool)
- A moderate strain of influenza; the impact of a very severe strain of influenza could increase the estimated numbers by as much as 100-fold.
- The duration of the pandemic will be eight (8) weeks (note: this may be decreased to six (6) weeks or increased to twelve (12) weeks on the FluSurge tool)
- Data source for bed counts: Hospital Industry's Data Institute ASF survey for 2005 for Missouri and AHA survey file for 2004 for Kansas and Illinois
- The number of licensed ICU and non-ICU beds include all specialty, pediatric and neonatal beds
- Absenteeism rates are estimated at 40%; the staffing assumptions reflect this estimate
- The number of ventilators is a very rough estimate – we are currently collecting data on the number of ventilators available in Missouri; Kansas and Illinois do not have ventilator estimates included
- The average length of a non-ICU hospital stay will be five (5) days
- The average length of an ICU stay will be ten (10) days
- The average length of ventilator usage will be ten (10) days
- The average proportion of admitted influenza patients requiring ICU will be 15%
- The average proportion of admitted influenza patients requiring ventilator support will be 7.5%
- The average proportion of influenza deaths assumed to be hospitalized will be 70%

### **KCMHC – specific** (Refer to Attachment C)

Kansas City estimated area included the following Kansas and Missouri counties: Bates, Cass, Clay, Jackson, Johnson, Lafayette, Platte, Ray, Atchison, Douglas, Franklin, Johnson, Leavenworth, Miami, Shawnee, Wyandotte.

### **STLMHC – specific** (Refer to Attachment C)

St. Louis estimated area included the following Missouri and Illinois counties: Crawford, Franklin, Jefferson, St. Charles, St. Louis (County), St. Louis (City\*), Clinton, Madison, Monroe, Randolph, St. Clair

\*FluSurge estimates are based on 2004 census; 2005 estimated Census data was not available.

The FY05 surge capacity inventory results:

- Total number of beds which hospitals are capable of surging beyond the current staffed bed capacity in a 24 hour period: 6684
- Total number of patients hospitals has capability to hold in negative pressure isolation above current daily capacity: 1299
- Number of health care personnel that can be adequately supplied with personal protective equipment:
  - Level C: 1533
  - N95 Masks: 27651
- Total number of ventilators: 1607 adult, 555 pediatric

### **Hospitals**

Hospitals and other healthcare facilities must be prepared for the rapid pace and dynamic characteristics of pandemic influenza. All hospitals should be equipped and ready to care for:

- A limited number of patients infected with a pandemic influenza virus or other novel strains of influenza, as part of normal operations; and
- A large number of patients in the event of escalating transmission of pandemic influenza.

### **Pandemic Influenza Level: *Interpandemic and Pandemic Alert Periods***

*The phases described have been summarized from the World Health Organization (WHO) global influenza preparedness plan published in 2005. It is important to understand that actual spread of the virus may or may not be described by these phases.*

### **Interpandemic Period**

#### **Phase 1:**

No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.

#### **Phase 2:**

No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

## **Pandemic Alert Period**

### **Phase 3:**

Human infection(s) with a new subtype, but no human-to-human spread, or at most, rare instances of spread to a close contact.

The focus is on planning during the interpandemic and pandemic alert periods.

### **Health Care Planning** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Develop planning and decision making structures for responding to pandemic influenza.
- Develop a written pandemic influenza plan. (See Attachment D)
- Establish a planning committee.
- Utilize the checklist from HHS to develop individual plans that address:
  - Disease surveillance
    - Assure procedures in place to facilitate laboratory testing on-site using proper biosafety level-rated facilities and reporting of unusual influenza isolates through the local and state surveillance systems.
    - If appropriate biosafety levels do not exist at the hospital, specimens should be shipped to DHSS, SPHL. (Refer to Laboratory Preparedness Annex)
    - Predetermine thresholds based on CDC guidance and Health Alerts for activation of pandemic influenza surveillance plans.
    - Assign responsibility for someone to monitor worldwide status related to pandemic influenza.
  - Hospital communications
    - External: Each hospital should work with public health officials, other government officials, neighboring healthcare facilities, the lay public, and the press to ensure rapid and ongoing information sharing during an influenza pandemic.
    - Internal: Determine how to keep administrators, personnel, patients, and visitors informed of the ongoing impact of pandemic influenza on the facility and on the community.
  - Education and training
    - Develop an education and training plan that addresses the needs of staff, patients, family members, and visitors.
    - Assign responsibility for coordination of the education and training program.
    - Identify training materials in different languages and at different reading levels, as needed.
  - Occupational health
    - Develop a plan to:
      - Protect healthy workers from exposures in the healthcare setting.
      - Evaluate and manage symptomatic and ill healthcare personnel.
      - Distribute and administer antiviral drugs and/or vaccines to healthcare personnel as recommended.
      - Provide psychosocial services to health care workers and their families.
    - Clarify time-off policies and procedures for health care providers who are asked to stay at home.
    - Determine how “just in time” refresher training and education will be provided for all health care personnel at the start of the pandemic influenza outbreak.

- Develop work restriction policies, including clear guidance on the need for staff to stay home in the event of fever and respiratory symptoms.
- Develop a strategy for regularly updating clinicians, direct patient care staff and screening/triage staff on the current status of the pandemic and any changes in the recommendations for management of influenza patients.
- Develop a plan to provide for staff's physical and mental health needs at work.
- Designate appropriate staff to be responsible for monitoring of employee health and adherence to appropriate infection control measures.
- Promote annual influenza vaccination among hospital employees.
- Ensure system in place for documenting influenza vaccination of healthcare personnel.
- Establish a strategy for rapidly vaccinating or providing antiviral prophylaxis or treatment to healthcare personnel as recommended.
- Provide information to staff regarding the importance of creating family emergency preparedness plans in advance of an emergency.
- Use and administration of vaccines and antiviral drugs. (Refer to Vaccine and Antiviral Storage and Distribution Annex)
- Surge Capacity: Triage and clinical evaluation, and admission procedures
  - Ensure effective triage and isolation procedures are in place to facilitate the early recognition and appropriate management of patients presenting with clinical symptoms and/or epidemiologic risk factors for influenza due to novel strains.
  - Describe strategies to confirm ability to enhance triage capacity as needed by use of alternate areas in existing facilities and use of volunteers.
  - Identify and train staff from other parts of the hospital or from the community to increase triage staff in the event of a large outbreak.
  - Develop strategies for triage and admission that minimize the risk of transmission to staff, patients and visitors including phone triage.
- Establish segregated waiting areas in the emergency department for persons with respiratory symptoms.
- Establish a separate triage evaluation area for persons with respiratory symptoms.
- Assign a triage coordinator to manage patient flow, including deferring or referring patients who do not require emergency care.
- Develop streamline admission procedures as needed to limit the number of patient encounters in the hospital.
- Criteria for implementing phone triage to discourage unnecessary emergency department visits.
- Develop enforcement procedures for respiratory hygiene/cough etiquette.
- Determine staff external triage stations and evaluation units.
- Procedures for activating nursing hotlines to help with the triaging of patients to the appropriate level of care including home care.
- Provide visual alerts regarding the need for patients with fever and respiratory symptoms to proceed directly to triage and adhere to respiratory and hand hygiene precautions.
- Procedures for deferring elective admission and procedures until local epidemic wanes.
- Procedures for discharging patients as soon as possible.
- Cohorting patients admitted with influenza.
- Procedures for monitoring for nosocomial transmission.

- Surge Capacity: Staffing
  - Plan for emergency staffing needs.
    - Consider furlough or reassigning of pregnant staff and other staff at high risk for complications of influenza.
    - Consider re-assigning non-essential staff to support critical hospital services.
    - Review list of essential-support personnel titles that are needed to maintain hospital operations.
    - Cohort staff caring for influenza patients.
    - Consider assigning staff recovering from influenza to care for influenza patients.
    - Widespread transmission in community and hospital; patient admissions at surge capacity.
      - ❑ Recruit community volunteers (retired nurses and physicians, clinical staff working in outpatient settings).
      - ❑ Request DHSS to activate the Emergency System for Advanced Registration of Volunteer Healthcare Professionals (ESAR-VHP).
      - ❑ Request assistance from Medical Reserve Corp.
      - ❑ Request assistance from trainees (e.g. medical and nursing students).
      - ❑ Request assistance from patients' family members in an ancillary healthcare capacity.
      - ❑ Assign responsibility for the assessment and coordination of staffing during an emergency.
  - Estimate the minimum number and categories of personnel needed to care for a single patient or a small group of patients with influenza complications on a given day.
  - Determine how the hospital will meet staffing needs as the number of patients with pandemic influenza increases and/or healthcare and support personnel become ill or remain at home.
  - Develop guidelines on extending staff coverage of critical care units, including respiratory therapy staff.
  - Explore opportunities for recruiting healthcare personnel from other healthcare settings through Mutual Aid Agreements (MAA) or Memoranda of Understanding (MOU).
  - Develop policies for accepting volunteers.
  - Increase cross-training of personnel.
  - Create a list of essential-support personnel titles that are needed to maintain hospital operations.
- Surge Capacity: Bed Capacity
  - Determine who is responsible for using the EMSystem as a tool to monitor and address resource and staffing needs during a pandemic.
  - Review and revise admissions criteria for times when bed capacity is limited.
  - Develop policies and procedures for expediting the discharge of patients who do not require ongoing patient care.
  - Address the need for sufficient intensive care and ventilatory support for patients with respiratory distress/failure.

- Develop criteria or “triggers” for temporarily canceling elective surgical procedures and determining what and where emergency procedures will be performed during a pandemic.
- Develop policies and procedures for shifting patients between nursing units to free up bed space in critical-care areas and/or cohort pandemic influenza patients.
- Create strategies for enhancing isolation capacity, including wards for cohorting patients with pandemic influenza and/or creating non-traditional isolation spaces.
- Identify areas of the facility that could be vacated for use in cohorting influenza patients.
- Surge Capacity: Consumable and durable supplies (Refer to HHS Pandemic Plan, Supplement 3-17, [www.hhs.gov/pandemicflu/plan/sup.html](http://www.hhs.gov/pandemicflu/plan/sup.html).)
  - Evaluate existing system for tracking available medical supplies in the hospital.
  - Determine when/how to stockpile consumable resources.
  - Develop a strategy for acquiring additional respiratory care equipment.
  - Develop strategy to maintain antibiotics to treat bacterial complications of influenza.
- Surge Capacity: Continuation of essential medical services
  - Coordinate with other hospitals, primary care centers, home health agencies and long-term care facilities to allow hospitals to care for the sickest patients, and to maximize resources of other health care facilities and home care agencies to care for those less severely ill.
  - Address how essential medical services will be maintained for persons with chronic medical problems served by the hospital.
  - Consider alternative care sites.
- Incident Command
  - Review plan for activating Incident Command Management System.
- Security
  - Limit facility access
  - Define “essential” and “non-essential” visitors.
  - Develop criteria or “triggers” for temporary closing of the hospital to new admissions and transfer.
  - Determine how to involve security services in enforcing access controls.
  - Define methods for verifying identification of staff and visitors.
  - Enforce hospital access by hospital security services.
  - Consider plans for having staff act as additional security personnel. This may be required given the increased demand for services, the possibility of long wait times for care, and because triage or treatment decisions may not be in agreement with patient or family expectations.
- Mortuary issues (Refer to Mortuary Affairs Annex)
  - Assess current capacity for refrigeration of deceased persons.
  - Develop strategies to handle fatality surge.
  - Identify temporary morgue sites.
    - Document pre-identified potential locations that could be retrofitted to maintain temperature of 35%-37° and turned into body storage location.
  - Determine the scope and volume of supplies needed to handle an increased number of deceased persons.
  - Include coroner/medical examiner in planning workgroup.

- Develop appropriate MOU

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

Surveillance will include the need for hospitals to have systems in place during the pandemic alert period to identify patients at risk for infections with novel influenza strains.

- Participate in DHSS robust syndromic surveillance system and electronic laboratory reporting system.

**Communications** (Refer to Public Communications Annex)

Each hospital should work with public health officials, other government officials, neighboring healthcare facilities, the public and the press to ensure rapid and ongoing information sharing during an influenza pandemic.

- Communicate plan to staff and local public health agency (LPHA).
- Assure redundant communication systems are in place.
- Assure systems are in place to receive and distribute health alerts.
- Coordinate with LPHA to share contact information.

**Education/Training**

- Staff Education
  - Identify educational resources for clinicians.
  - General topics for staff education should include:
    - Prevention and control of influenza
    - Implications of pandemic influenza
    - Benefits of annual influenza vaccination
    - Role of antiviral drugs in preventing disease and reducing rates of severe influenza and its complications
    - Infection control strategies
    - Creating family emergency preparedness plans
  - Hospital-specific topics
    - Policies and procedures for the care of pandemic influenza patients
    - Pandemic staffing contingency plans
    - Policies for restricting visitors
    - Reporting to the health department
    - Measures to protect family and other close contacts
  - Train intake and triage staff to detect patients with influenza symptoms and to implement immediate containment measures to prevent transmission. (Refer to HHS Pandemic Plan Supplement 5, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))
  - Supply behavioral health workers with guidance for providing psychological support to patients and hospital personnel. (Refer to Mental Health Annex)
- Essential Health Care Staffing
  - Mental health concerns of all health care workers need to be considered in planning for influenza patients (Refer to Mental Health Annex)
  - Develop a policy to address staff that refuses to work with influenza patients.

**Surge Capacity: Consumable and Durable Supplies** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html).)

- Consider stockpiling enough consumable resources such as personal protective equipment for the duration of a pandemic wave (six (6) – eight (8) weeks).
- Evaluate existing systems for tracking available medical supplies to ensure they are capable of detecting rapid consumption.
- Anticipate needs for antibiotics to treat bacterial complications of influenza and determine how supplies can be maintained during a pandemic.

**Exercises**

Participate in pandemic influenza response exercises and drills, and incorporate lessons learned into response plans.

**Security**

- Assure security participate in education and exercise opportunities.
- Upgrade security equipment, as necessary.
- Cross train appropriate personnel.

**Phase 4**

*Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well-adapted to humans.*

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Initiate heightened surveillance.
- Provide daily surveillance information to local public health agencies and DHSS upon request.

**Surge Capacity: Consumable and Durable Supplies** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Determine availability of critical equipment and medicines.
- Coordinate with LPHA to determine needed doses of vaccine and antivirals for identified high priority populations.

**Phase 5**

*Large cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).*

**Health Care Planning**

- Implement pandemic influenza plan.

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Maintain heightened surveillance.
- Assure hospital laboratory testing is accomplished and that advanced testing of samples for sero-typing are sent to the SPHL as appropriate.



**Communication** (Refer to Public Communications Annex)

- Communicate updates to LPHA and DHSS as requested.
- Monitor bulletins and events related to the novel influenza virus.
- Keep apprised of Health Alerts and distribute according to plan.
- Consult with LPHA and DHSS regarding communication strategies.

**Surge Capacity: Consumable & Durable Supplies** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Evaluate resources available to manage surge of patients.

**Pandemic Influenza Level: *Pandemic Period*****Phase 6*****Pandemic; increased and sustained transmission general population***

The primary goal during the pandemic period is to enhance the capacity of the health care system to care for the increased burden of illness due to the pandemic.

Following initial detection of pandemic influenza anywhere in the world, the facility's pandemic influenza response plan should be activated in accordance with the level of pandemic activity.

***Pandemic influenza outside the United States*****Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Implement hospital surveillance for pandemic influenza.
  - Conduct surveillance in emergency departments to detect any increase in influenza-like illness during the early stages of the pandemic.
  - Monitor employee absenteeism for increases that might indicate early cases of pandemic influenza.
  - Track emergency department visits and hospital admissions and discharge of suspected or laboratory-confirmed pandemic influenza patients. This information is needed to:
    - Support local public health personnel in monitoring the progress and impact of the pandemic
    - Assess bed capacity and staffing needs
    - Detect a resurgence in pandemic influenza that might follow the first wave of cases.
  - Provide to state or local health department through regular reporting methods or through Biosense or EMSsystem, if requested.
  - Implement a system for early detection and antiviral treatment of healthcare workers who might be infected with the pandemic strain of influenza virus.
  - Consult with the SPHL to determine appropriate laboratory testing and procedures (Refer to the Laboratory Preparedness Annex)

**Communication** (Refer to Public Communications Annex)

- Establish contact with key public health, healthcare, and community partners.

- Designated staff from the specialties of emergency medicine, infectious disease, pediatrics, laboratory, nursing, internal medicine, family medicine and senior administration should be instructed to check daily e-mail, health alerts and the DHSS web site for updates.
- Designate staff to participate in videoconferences, as appropriate.
- Designate staff to attend local, regional and statewide meetings regarding pandemic influenza.
- Update clinical, emergency department and outpatient staff on the status of pandemic influenza in their area.

### **Education and Training**

- Accelerate the training of staff in accordance with the facility's pandemic influenza education and training plan.
- Design education and training beyond normal scope of practice protocols and just-in-time training to expand healthcare personnel capacity if allowed under executive order.

### **Surge Capacity: Hospital Admissions**

- Limit admission of influenza patients into hospitals to those with severe complications of influenza who cannot be cared for outside the hospital setting.

**Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- All health care settings should follow the infection control guidance in the HHS Pandemic Flu Plan Supplement 4-IV.A-E at [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html). Setting-specific infection control issues should also be considered.

### ***Pandemic influenza reported in the United States***

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Continue hospital surveillance for pandemic influenza.
- Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain.
- Investigate any clusters of influenza-like illness among staff/visitors or patients, and report to local health department.
  - Consult with the SPHL to determine appropriate laboratory testing and procedures (Refer to the Laboratory Preparedness Annex)

**Communication** (Refer to Public Communications Annex)

- Maintain close communication within and among healthcare facilities and with state and local health departments.
  - Monitor EMS system.
  - Publish key messages.
  - Inform patients and visitors about the level of pandemic influenza activity.

### **Education and Training**

- Implement cross training of personnel to provide support for essential patient-care areas at times of severe staffing shortages.

## **Surge Capacity**

- Implement activities to increase capacity, supplement staff and provide supplies and equipment.

## **Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html))

- Post signs highlighting respiratory hygiene/cough etiquette.
- Implement procedure when the trigger point is reached at which time screening for signs and symptoms of pandemic influenza in all persons entering the hospital will escalate from passive to active.
- Identify, isolate and treat all patients with potential pandemic influenza.

## **Occupational Health**

- Instruct all health care workers to report influenza-like illness to the appropriate department:
  - If onset of employee illness occurs during work, instruct the health care worker to don a surgical mask and report to a designated clinical evaluation area.
  - If onset of illness occurs at home, instruct the employee to report by telephone their illness to the designated department and to not report to work until symptoms resolve. Human influenza virus sheds for five (5) – seven (7) days and health care workers will need to stay at home for at least seven (7) days. This recommendation may need to be changed based on the actual epidemiologic characteristics of the pandemic strain if the shedding period is determined to be shorter or longer.
  - Assess whether any employee illness is part of a health care-related cluster of illness.
  - Make psychosocial services available for staff.
  - Implement time-off policies and procedures for health care providers who are asked to stay at home.
  - Reassign health care providers that are at high risk for complications of influenza to lower risk jobs that do not involve direct care of suspected pandemic patients.

## ***Pandemic influenza in the local area***

Once evidence of person-to-person spread of pandemic influenza is in the local area, hospitals should activate their National Incident Management System and coordinate with the local EOC. Implement the Modular Emergency Medical System, as appropriate.

Response to pandemic influenza is assumed to occur primarily in hospitals and primary care centers. Hospitals may not be able to transfer potentially contagious cases/patients, will likely function at full capacity, and may lack adequate critical care capacity. Since the pandemic will be widespread in the United States, the supplies from the Federal Strategic National Stockpile (SNS) may not be available and local caches will need to be relied upon.

In the absence of sufficient antiviral drugs and/or vaccine, general supportive care and intensive care for critically ill patients in hospital settings may be the only health care options available. The focus will be on steps to take to enhance critical care capacity, as well as ensuring that hospital care is targeted to those likely to survive. It will be essential to leverage the capacity of the primary care system to manage patients with less severe illness and those at lower risk for complications or death. This shift will minimize the impact on acute care hospitals. It is also

important to work with both home care and long-term care facilities to help offset the demand for hospital care. Altering normal standards of care and regulatory requirements may be necessary.

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Provide requested data to the EMS system as requested. Requested data may include:
  - Total number of emergency department visits and number due to suspected influenza.
  - Total number of new admissions and number due to suspected and confirmed influenza.
  - Bed occupancy and availability by type of unit (including adult and pediatric intensive care).
  - Number of hospitalized patients with suspected or confirmed influenza.
  - Negative pressure isolation room occupancy and availability.
  - Staff absenteeism.
  - Ventilator availability.
  - Antiviral supplies.
  - Morgue capacity.
- For detection of cases during the Pandemic Period, hospitals should:
  - Activate mechanisms for conducting surveillance in emergency departments to detect any increases in influenza-like illness during the early stages of the pandemic.
  - Symptoms include fever, headache, myalgia, prostration, coryza, sore throat, and cough. Nausea and vomiting are also commonly reported among children. Typical influenza symptoms, such as fever, may not always be present in elderly patients, young children, patients in, or persons with underlying chronic illness. (Refer to HHS Pandemic Plan Supplement 5 box 2, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))
  - Activate mechanisms for monitoring employee absenteeism for increases that might indicate early cases of pandemic influenza.
  - Activate mechanisms for tracking emergency department visits and hospital admissions and discharge of suspected or laboratory-confirmed pandemic influenza patients.
  - Keep apprised of types of data that should be reported to state and local health departments.
  - Implement criteria for distinguishing pandemic influenza from other respiratory diseases. (Refer to HHS Pandemic Plan Supplement 5, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))
  - Consult with the SPHL to determine appropriate laboratory testing and procedures (Refer to the Laboratory Preparedness Annex)

**Communications** (Refer to Public Communications Annex)

- Provide effective risk communication messages to gain the public's cooperation and trust in the need to limit hospital care to those most likely to benefit.
- With guidance from state or local health department, determine methods, frequency and scope of external communications.
- Implement plan on how communications will flow between local and regional health care facilities.
- Consult with Public Communications Subcommittee on what has been provided related to hospitals

## **Education and Training**

- Provide ‘just in time’ training based on pandemic management planning.

## **Surge Capacity**

- Triage and clinical evaluation and admission procedures.
  - Establish segregated waiting areas in the emergency department for persons with respiratory symptoms.
  - Establish a separate triage evaluation area for persons with respiratory symptoms.
  - Assign a triage coordinator to manage patient flow, including deferring or referring patients who do not require emergency care.
  - Streamline admission procedures as needed to limit the number of patient encounters in the hospital.
  - Implement phone triage to discourage unnecessary emergency department visits.
  - Enforce respiratory hygiene/cough etiquette.
  - Set up and staff external triage stations and evaluation units.
  - Activate nursing hotlines to help with the triaging of patients to the appropriate level of care, including home care.
  - Provide visual alerts regarding the need for patients with fever and respiratory symptom to proceed directly to triage and adhere to respiratory and hand hygiene precautions.
  - Hand hygiene materials and masks should be readily available in all waiting room areas.
  - Defer elective admission and procedures until local epidemic wanes.
  - Discharge patients as soon as possible.
  - Cohort patients admitted with influenza.
  - Monitor for nosocomial transmission.
- Staffing
  - Consider furlough or reassigning of pregnant staff and other staff at high risk for complications of influenza.
  - Consider re-assigning non-essential staff to support critical hospital services.
  - Review list of essential-support personnel titles that are needed to maintain hospital operations.
  - Cohort staff caring for influenza patients.
  - Consider assigning staff recovering from influenza to care for influenza patients.
  - Widespread transmission in community and hospital; patient admissions at surge capacity.
    - Recruit community volunteers (retired nurses and physicians, clinical staff working in outpatient settings).
    - Request DHSS to activate the Emergency System for Advanced Registration of Volunteer Healthcare Professionals (ESAR-VHP).
    - Request assistance from Medical Reserve Corp.
    - Request assistance from trainees (e.g. medical and nursing students).
    - Request assistance from patients’ family members in an ancillary healthcare capacity.
    - Consider placing on administrative leave all non-essential personnel who cannot be reassigned to support critical hospital services.
- Bed Capacity

- As necessary, implement plans for rapid patient discharge, canceling elective surgery and expanding staff shifts.
- Establish separate waiting areas for persons with symptoms suggestive of influenza.
- If bed capacity is limited, hospitals should implement plans for cohorting patients admitted with influenza.
- If intensive care capacity is limited, steps may need to be taken to expand the ability to offer additional ventilatory support care or initiate the treatment protocols for patients triage expectant.
- Implement policies and procedures for shifting patients between nursing units to free up bed space in critical-care areas and/or to cohort patients.
- Collaborate with home health agencies to arrange at-home follow-up care for patients who have been discharged early and for those whose admission was deferred because of limited bed space.
- Determine whether patients who require emergency procedures can be transferred to another hospital.
- Hospital Incident Command to consult with DHSS regarding:
  - Altered standards of care.
  - Opening Alternative Care Site(s).
  - Activation of surge capacity trailers.
- Consumable and durable supplies
  - Request from local EOC according to Local Incident Management System additional ventilators according to incident management system process as necessary.
  - Request from local EOC according to Local Incident Management System other equipment and supplies as needed, according to incident management system process.
- Continuation of essential medical services
  - Defer elective admissions and procedures until local epidemic wanes.
  - Discharge patients as soon as possible.
  - Cohort patients admitted with influenza.
  - Monitor for nosocomial transmission.
  - Determine how to provide essential medical services for persons with chronic medical problems served the hospital.
- Mortuary Issues
  - Track number of deaths.
  - Maintain supplies for morgues.

## Security

- Facility access
  - Limit number of visitors to those essential for patient support.
  - Screen all visitors at point of entry to facility for signs and symptoms of influenza.
  - Limit points of entry to facility.
  - Assign clinical staff to entry screening.

## Infection Control (Refer to [www.hhs.gov/pandemicflu/plans/sup4.html](http://www.hhs.gov/pandemicflu/plans/sup4.html))

- Reduce hospital-related transmission. Consider the following:
  - Cohort staff and patients.
  - Restrict new admissions (except for other pandemic influenza patients) to affected units.

- Restrict visitors to the affected units to those who are essential for patient care and support.

### **Occupational Health**

- Consider furlough or reassignment of pregnant staff and other staff at high risk for complications of influenza.
- Implement system for detecting and reporting signs and symptoms of influenza in staff reporting for duty.
- Provide staff with antiviral prophylaxis, according to HHS and DHSS guidelines.
- Activate family preparedness plans.

### **Altered Standards of Care**

- If indicated, guidance regarding changes in existing standards of care will be issued from the Governor's Office in coordination with DHSS.
  - Alternative Care Sites
  - Cohorting of patients
  - Ventilator usage
  - Relaxation of hospital regulations
  - Increasing patient care ratios for intensive care nurses and respiratory therapists.
- Decisions regarding hospital closures or decreases in services should be discussed with DHSS and MHA.

### **Emergency Medical Service And Non-Emergent Medical Transport**

Emergency medical organizations will be involved in the transport of acutely ill patients with known or suspected pandemic influenza to emergency departments. It is anticipated that some of these patients might require mechanical ventilation for life support and/or other lifesaving interventions. Non-emergent (medical) transport organizations will be called upon to transport recovering pandemic influenza patients to their home, residential care facility, or possibly to alternative care sites.

### **Pandemic Influenza Level: *Interpandemic and Pandemic Alert Periods***

*The phases described have been summarized from the World Health Organization (WHO) global influenza preparedness plan published in 2005. It is important to understand that actual spread of the virus may or may not be described by these phases.*

#### **Interpandemic Period**

**Phase 1:** No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.

**Phase 2:** No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

#### **Pandemic Alert Period**

**Phase 3:** Human infection(s) with a new subtype, but no human-to-human spread, or at most, rare instances of spread to a close contact.

### **Health Care Planning** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Develop planning decision making structures for responding to pandemic influenza.
- Develop a written pandemic influenza plan. (Refer to Attachment E)
- Establish a planning committee.
- Utilize the checklist from DHHS to develop individual plans that address:
  - Surveillance
    - System in place to track influenza-like illness in patients transported to hospitals and staff.
  - Communications
    - External: Work with public health officials, other government officials, neighboring healthcare facilities, the lay public, and the press to ensure rapid and ongoing information sharing during an influenza pandemic.
    - Internal: Determine how to keep administrators and personnel informed of the ongoing impact of pandemic influenza on the facility and on the community.
  - Education and training
    - Develop an education and training plan that addresses the needs of staff, patients, and family members.
    - Assign responsibility for coordination of the education and training program.
    - Identify training materials in different languages and at different reading levels, as needed.
  - Occupational Health
    - Develop a plan to:
      - Protect healthy workers from exposures in the healthcare setting.
      - Evaluate and manage symptomatic and ill healthcare personnel.
      - Distribute and administer antiviral drugs and/or vaccines to healthcare personnel as recommended.
      - Provide psychosocial services to health care workers and their families.
    - Determine how “just in time” refresher training and education will be provided for all health care personnel at the start of the pandemic influenza outbreak.
    - Develop work restriction policies, including clear guidance on the need for staff to stay home in the event of fever and respiratory symptoms.
    - Develop a strategy for regularly updating staff on the current status of the pandemic and any changes in the recommendations for management of influenza patients.
    - Develop a plan to provide for staff’s physical and mental health needs at work.
    - Designate appropriate staff to be responsible for monitoring of employee health and adherence to appropriate infection control measures.
    - Promote annual influenza vaccination among staff.
    - Ensure system in place for documenting influenza vaccination of healthcare personnel.
    - Establish a strategy for rapidly vaccinating or providing antiviral prophylaxis or treatment to staff as recommended.
    - Provide information to staff regarding the importance of creating family emergency preparedness plans in advance of an emergency.
  - Infections control (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))



- Vaccine (Refer to Vaccine and Antiviral Storage and Distribution Annex)
- Triage and management of patients:
  - Develop pre-established criteria and coordination protocols to determine who needs emergency transport for phone triage of patients calling 911 or other emergency numbers.
  - Handling of large volume of patients.
    - Policy for transporting multiple patients with pandemic influenza during a single ambulance run.
    - Identify other vehicles that may be used to transport.
  - Surge capacity
    - Determine minimum number of personnel necessary to sustain EMS and non-emergent (medical) transport services on a day-to-day basis.
    - Determine anticipated consumable resource needs

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)  
 Surveillance will include the need for EMS to have systems in place during the pandemic alert period to identify patients at risk for infections with novel influenza strains.

**Communications** (Refer to Public Communications Annex)

- Assure redundant communication systems are in place.
- Assure systems are in place to receive and distribute health alerts.

### **Education/Training**

- Identify educational training resources for staff.
- General topics for staff education should include:
  - Prevention and control of influenza
  - Implications of pandemic influenza
  - Benefits of annual influenza vaccination
  - Role of antiviral drugs in preventing disease and reducing rates of severe influenza and its complications
  - Infection control strategies
  - Creating family emergency preparedness plans

### **Phase 4**

*Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well-adapted to humans.*

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Initiate heightened surveillance.

### **Surge Capacity**

- Determine availability of critical equipment and medicines.

### **Phase 5**

*Large cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).*

## **Health Care Planning**

- Implement pandemic influenza plan.

## **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Maintain heightened surveillance.

## **Communication** (Refer to Public Communications Annex)

- Communicate updates to LPHA and DHSS as requested.
- Monitor bulletins and events related to the novel influenza virus.
- Keep apprised of Health Alerts. Distribute according to plan.
- Consult with LPHA and DHSS regarding communication strategies.

## **Surge Capacity**

- Evaluate resources available to manage surge of patients with pandemic influenza.

## **Phase 6**

***Pandemic: increased and sustained transmission in general population.***

***Pandemic influenza outside the United States***

## **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Monitor public health advisories.
- Ensure that key staff are current on information provided by Health Alert Network.
- Conduct surveillance on all patients.
- Monitor employee absenteeism for increases that might indicate early cases of pandemic influenza.
- Provide to state or local health department through regular reporting methods or through if requested.
- Implement a system for early detection and antiviral treatment of staff who might be infected with the pandemic strain of influenza virus.
- Continue surveillance for pandemic influenza.
- Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain.
- Investigate any clusters of influenza-like illness among staff or patients, and report to local health department.

## **Communication** (Refer to Public Communications Annex)

- Establish contact with key public health, healthcare and community partners.
  - Designated staff should be instructed to check daily e-mail, health alerts and DHSS web-site for updates.
  - Designate staff to participate in videoconferences, as appropriate.
  - Designate staff to attend local, regional and statewide meetings regarding pandemic influenza.

## **Education and Training**

- Accelerate the training of staff, in accordance with the agency's pandemic influenza education and training plan.

## **Surge Capacity**

- Implement activities to increase capacity, supplement staff and provide supplies and equipment.
- Monitor and identify critical gaps in ability to provide emergency medical supplies.

## **Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Post signs for respiratory hygiene/cough etiquette.
- Implement procedure when the trigger point is reached at which time screening for signs and symptoms of pandemic influenza in all persons transported will escalate from passive to active.
- Reinforce infection control measures to prevent the spread of influenza.

## **Occupational Health**

- Instruct all health care workers to report influenza-like illness to the appropriate department:
  - If onset of employee illness occurs during work, instruct the health care worker to don a surgical mask and report to a designated clinical evaluation area.
  - If onset of illness occurs at home, instruct the employee to report by telephone their illness to the designated department and to not report to work until symptoms resolve. Human influenza virus sheds for five (5) – seven (7) days and health care workers will need to stay at home for at least seven (7) days. This recommendation may need to be changed based on the actual epidemiologic characteristics of the pandemic strain if the shedding period is determined to be shorter or longer.
  - Assess whether any employee illness is part of a health care-related cluster of illness.
  - Make psychosocial services available for staff.
  - Clarify time-off policies and procedures for health care providers who are asked to stay at home.
  - Reassign health care providers that are at high risk for complications of influenza to lower risk jobs that do not involve direct care of suspected pandemic patients.

## ***Pandemic influenza reported in the United States***

### **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Continue hospital surveillance for pandemic influenza.
- Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain.
- Investigate any clusters of influenza-like illness among staff/visitors or patients, and report to local health department.

### **Communication** (Refer to Public Communications Annex)

- Maintain close communication within and among healthcare facilities and with state and local health departments.
  - Monitor EMS system.
  - Publish key messages.
  - Inform patients and visitors about the level of pandemic influenza activity.

### **Education and Training**

- Implement cross training of personnel to provide support for essential patient-care areas at times of severe staffing shortages.

### **Surge Capacity**

- Implement activities to increase capacity, supplement staff and provide supplies and equipment.

### **Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Post signs for respiratory hygiene/cough etiquette.
- Implement procedure when reach the trigger point at which screening for signs and symptoms of pandemic influenza in all persons entering the hospital will escalate from passive to active.
- Identify, isolate and treat all patients with potential pandemic influenza.

### **Occupational Health**

- Instruct all health care workers to report influenza-like illness to the appropriate department:
  - If onset of employee illness occurs during work, instruct the health care worker to don a surgical mask and report to a designated clinical evaluation area.
  - If onset of illness occurs at home, instruct the employee to report by telephone their illness to the designated department and to not report to work until symptoms resolve. Human influenza virus sheds for five (5) – seven (7) days and health care workers will need to stay at home for at least seven (7) days. This recommendation may need to be changed based on the actual epidemiologic characteristics of the pandemic strain if the shedding period is determined to be shorter or longer.
  - Assess whether any employee illness is part of a health care-related cluster of illness.
  - Make psychosocial services available for staff.
  - Clarify time-off policies and procedures for health care providers who are asked to stay at home.
  - Reassign health care providers that are at high risk for complications of influenza to lower risk jobs that do not involve direct care of suspected pandemic patients.

### ***Pandemic influenza in the local area***

Once evidence of person-to-person spread of pandemic influenza is in local area should activate their National Incident Management System. Assist LPHAs and hospitals implement the Modular Emergency Medical System, as appropriate.

Response to pandemic influenza is assumed to occur primarily in hospitals and primary care centers. Hospitals may not be able to transfer potentially contagious cases/patients, will likely

function at full capacity, and may lack adequate critical care capacity. Since the pandemic will be widespread in the United States, the supplies from the Federal Strategic National Stockpile (SNS) may not be available and local caches will need to be relied upon.

In the absence of sufficient antiviral drugs and/or vaccine, general supportive care and intensive care for critically ill patients in hospital settings may be the only health care options available. The focus will be on steps to take to enhance critical care capacity, as well as ensuring that hospital care is targeted to those likely to survive. It will be essential to leverage the capacity of the primary care system and home health agencies to manage patients with less severe illness and those at lower risk for complications or death. This shift will minimize the impact on acute care hospitals. Altering normal standards of care and regulatory requirements may be necessary. Collaboration with hospitals, local pandemic planning committees and public health agencies will be essential to ensure that affected population receives needed health care services.

#### **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Provide requested data to the local public health agency as requested.
- For detection of cases during the Pandemic Period, agencies should:
  - Activate mechanisms for conducting surveillance to detect any increases in influenza-like illness during the early stages of the pandemic.
    - Symptoms include fever, headache, myalgia, prostration, coryza, sore throat, and cough. Nausea and vomiting are also commonly reported among children. Typical influenza symptoms, such as fever, may not always be present in elderly patients, young children, or persons with underlying chronic illness.
  - Activate mechanisms for monitoring employee absenteeism for increases that might indicate early cases of pandemic influenza.
  - Keep apprised of types of data that should be reported to state and local health departments.
  - Implement criteria for distinguishing pandemic influenza from other respiratory diseases (Refer to HHS Pandemic Plan Supplement 5, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

#### **Communications** (Refer to Public Communications Annex)

- Provide effective risk communication messages to gain the public's cooperation and trust in the need to limit home health visits are for those most likely to benefit.
- Implement plan on how communications will flow between local and regional health care facilities.
- Collaborate with Communication Subcommittee on what has been provided related to EMS.

#### **Education and Training**

- Provide 'just in time' training based on pandemic management planning.

#### **Surge Capacity**

- Monitor the EMS system and report to DHSS in order to coordinate requests for hospital closure, diversion or decreases in services.
- Request personnel protective equipment and supplies as needed from DHSS.
- Triage

- Inform people whether to stay home or to seek care.
- Lessen exposure of the “worried well” to persons with influenza.
- For patients with suspected influenza, assess for potential isolation and use of infection control precautions.
- Enforce respiratory hygiene/cough etiquette.
- Serve as a source of information to community members and leaders on measures that can be taken to protect health and when to seek care.
- Request additional staff via Department of Health Senior Services’ Emergency System for Advanced Registration for Volunteer Health Professionals (ESAR-VHP)

**Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Setting Specific infection control issues should be considered.

### **Occupational Health**

- Consider furlough or reassignment of pregnant staff and other staff at high risk for complications of influenza.
- Implement system for detecting and reporting signs and symptoms of influenza in staff reporting for duty.
- Provide staff with antivirals prophylaxis, according to HHS and DHSS guidelines.
- Activate family preparedness plans.

### **Non-Hospital Settings**

#### **(Out Patient Clinics Including Community Health Centers)**

Planning an effective delivery of care in outpatient settings is critical. To maintain essential medical services, careful coordination will be needed between hospitals, out patient care clinics and community health centers. The emphasis will be on allowing hospitals to care for the sickest patients, regardless of etiology, and to maximize the resources of other health care facilities and home care agencies to care for those less severely ill and/or at lower risk for complications or death, as well as those less likely to survive even with critical care support. Appropriate management of outpatient influenza cases will reduce progression to severe disease and thereby reduce demand for inpatient care.

### **Pandemic Influenza Level: *Interpandemic and Pandemic Alert Periods***

*The phases described have been summarized from the World Health Organization (WHO) global influenza preparedness plan published in 2005. It is important to understand that actual spread of the virus may or may not be described by these phases.*

### **Interpandemic Period**

**Phase 1:** No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.

**Phase 2:** No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

## **Pandemic Alert Period**

**Phase 3:** Human infection(s) with a new subtype, but no human-to-human spread, or at most, rare instances of spread to a close contact.

## **Health Care Planning** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

Out Patient and Community Health Centers must be prepared for the rapid pace and dynamic characteristics of pandemic influenza.

- Develop planning and decision making structures for responding to pandemic influenza.
- Develop a written pandemic influenza plan. (Refer to Attachment F)
- Establish a planning committee.
- Utilize the checklist from HHS to develop individual plans that address:
  - Disease surveillance
    - Determine how to conduct surveillance for pandemic influenza in health care personnel and in the population served.
    - Predetermine thresholds for activation pandemic influenza surveillance plans.
  - Communications
    - External: Work with public health officials, other government officials, neighboring healthcare facilities, the lay public, and the press to ensure rapid and ongoing information sharing during an influenza pandemic.
    - Internal: Determine how to keep administrators, personnel, patients, and visitors informed of the ongoing impact of pandemic influenza on the facility and on the community.
  - Education and training
    - Develop an education and training plan that addresses the needs of staff, patients, and family members.
    - Assign responsibility for coordination of the education and training program.
    - Identify training materials in different languages and at different reading levels, as needed.
  - Triage and clinical evaluation, and admission procedures
    - Ensure effective triage and isolation procedures are in place to facilitate the early recognition and appropriate management of patients presenting with clinical symptoms and/or epidemiologic risk factors for influenza due to novel strains.
  - Occupational Health
    - Develop a plan to:
      - Protect healthy workers from exposures in the healthcare setting.
      - Evaluate and manage symptomatic and ill healthcare personnel.
      - Distribute and administer antiviral drugs and/or vaccines to healthcare personnel as recommended.
      - Provide psychosocial services to health care workers and their families.
    - Determine how “just in time” refresher training and education will be provided for all health care personnel at the start of the pandemic influenza outbreak.
    - Develop work restriction policies, including clear guidance on the need for staff to stay home in the event of fever and respiratory symptoms.
    - Develop a strategy for regularly updating staff on the current status of the pandemic and any changes in the recommendations for management of influenza patients.
    - Develop a plan to provide for staff’s physical and mental health needs at work.

- Designate appropriate staff to be responsible for monitoring of employee health and adherence to appropriate infection control measures.
- Promote annual influenza vaccination among staff.
- Ensure system in place for documenting influenza vaccination of healthcare personnel.
- Establish a strategy for rapidly vaccinating or providing antiviral prophylaxis or treatment to staff as recommended.
- Provide information to staff regarding the importance of creating family emergency preparedness plans in advance of an emergency.
- Use and administration of vaccines and antiviral drugs. (Refer to Vaccine and Antiviral Storage and Distribution Annex)
- Surge Capacity: Staffing
  - Address emergency staffing needs.
  - Assign responsibility for the assessment and coordination of staffing during an emergency.
  - Determine how the clinic will meet staffing needs as the number of patients with pandemic influenza increases and/or staff become ill or remain at home.
  - Explore opportunities for recruiting healthcare personnel from other healthcare settings through MAA or MOU.
  - Develop policies for accepting volunteers.
  - Increase cross-training of personnel.
- Surge Capacity: Bed Capacity
  - Determine who is responsible for using the EMS system as a tool to monitor and address resource and staffing needs during a pandemic.
- Surge Capacity: Consumable and durable supplies (Refer to HHS Pandemic Plan Supplement 3-16, [www.hhs.gov/pandemicflu/plan](http://www.hhs.gov/pandemicflu/plan))
  - Evaluate existing system for tracking available medical supplies.
  - Determine when/how to stockpile consumable resources.
  - Develop strategy to maintain antibiotics to treat bacterial complications of influenza.
- Surge Capacity: Continuation of essential medical services
  - Coordinate with other out patient clinics and community health centers, hospitals, home health agencies and long-term care facilities to allow hospitals to care for the sickest patients, and to maximize resources of other health care facilities and home care agencies to care for those less severely ill.
- Incident Command
  - Review plan for activating Incident Command Management System.
- Mental health concerns of all healthcare workers need to be considered in planning for influenza patients. (Refer to Mental Health Annex)
- Develop a policy to address staff that refuses to work with influenza patients.

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

Surveillance will include the need for clinics to have systems in place during the pandemic alert period to identify patients at risk for infections with novel influenza strains.

- Participate in DHSS robust syndromic surveillance system and electronic laboratory reporting system, if capable.



**Communications** (Refer to Public Communications Annex)

Each clinic should work with public health officials, other government officials, neighboring healthcare facilities, the public and the press to ensure rapid and ongoing information sharing during an influenza pandemic.

- Assure redundant communication systems are in place.
- Assure systems are in place to receive and distribute health alerts.
- Collaborate with hospitals that serve same population to establish telephone hotlines.
- Have round the clock contact telephone numbers and current call-down list.
- Create a contact list of key community partners, including DHSS, LPHA, local emergency operations centers and other health care providers.
- Maintain an up-to-date patient roster and prioritize those patients according to the number of weekly visits and type of care required.

**Education/Training**

- Staff Education
  - Identify educational resources for clinicians.
  - General topics for staff education should include:
    - Prevention and control of influenza
    - Implications of pandemic influenza
    - Benefits of annual influenza vaccination
    - Role of antiviral drugs in preventing disease and reducing rates of severe influenza and its complications
    - Infection control strategies
    - Creating family emergency preparedness plans
  - Clinic-specific topics
    - Policies and procedures for the care of pandemic influenza patients
    - Pandemic staffing contingency plans
    - Reporting to the health department
    - Measures to protect family and other close contacts
  - Train intake and triage staff to detect patients with influenza symptoms and to implement immediate containment measures to prevent transmission. (Refer to HHS Pandemic Plan Supplement 5, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

**Exercises**

- Participate in pandemic influenza response exercises and drills, and incorporate lessons learned into response plans.

**Surge Capacity: Consumable and Durable Supplies** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Consider stockpiling enough consumable resources such as personal protective equipment for the duration of a pandemic wave (six (6) – eight (8) weeks).
- Evaluate existing systems for tracking available medical supplies to ensure they are capable of detecting rapid consumption.
- Anticipate needs for antibiotics to treat bacterial complications of influenza and determine how supplies can be maintained during a pandemic.
- Refer to attachments.

#### **Phase 4**

*Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well-adapted to humans.*

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Initiate heightened surveillance.
- Provide daily surveillance information to DHSS on request.

**Surge Capacity** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Determine availability of critical equipment and medicines.

**Vaccine** (Refer to Vaccine and Antiviral Storage and Distribution Annex)

- Coordinate with LPHA to determine needed doses of vaccine and antivirals for identified high priority populations.

#### **Phase 5**

*Large cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).*

**Health Care Planning**

- Implement pandemic influenza plan.

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Maintain heightened surveillance.
- Assure laboratory testing is accomplished. Collaborate with the SPHL as appropriate.

**Communication** (Refer to Public Communications Annex)

- Communicate updates to LPHA and DHSS as requested.
- Monitor bulletins and events related to the novel influenza virus.
- Keep apprised of Health Alerts. Distribute according to plan.
- Consult with LPHA and DHSS regarding communication strategies.

**Surge Capacity**

- Evaluate resources available to manage surge of patients.

**Pandemic Influenza Level: *Pandemic Period***

## **Phase 6**

### ***Pandemic; increased and sustained transmission in general population.***

Effective management of outpatient care in communities will require that health departments, health care organizations, and providers communicate and plan together. A system of effective outpatient management will have several components.

### ***Pandemic influenza outside the United States***

#### **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Monitor public health advisories.
- Ensure that key staff are current on information provided by Health Alert Network.
- Conduct surveillance on all patients.
- Monitor employee absenteeism for increases that might indicate early cases of pandemic influenza.
- Provide to state or local health department through regular reporting methods or through Biosense or EMSytem, if requested.
- Implement a system for early detection and antiviral treatment of staff who might be infected with the pandemic strain of influenza virus.
- Continue surveillance for pandemic influenza.
- Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain.
- Investigate any clusters of influenza-like illness among staff/visitors or patients, and report to local health department.

#### **Communication** (Refer to Public Communications Annex)

- Establish contact with key public health, healthcare and community partners.
  - Designated staff that should be instructed to check daily e-mail, health alerts and DHSS web-site for updates.
  - Designate staff to participate in videoconferences, as appropriate.
  - Designate staff to attend local, regional and statewide meetings regarding pandemic influenza.
  - Monitor EMSytem.
  - Update clinical, emergency department and outpatient staff on the status of pandemic influenza.
- Maintain close communication within and among healthcare facilities and with state and local health departments.
  - Monitor EMSytem.
  - Publish key messages.
  - Inform patients and visitors about the level of pandemic influenza activity.

#### **Education and Training**

- Implement cross training of personnel to provide support for essential patient-care areas at times of severe staffing shortages.

#### **Surge Capacity**

- Implement activities to increase capacity, supplement staff and provide supplies and equipment.

**Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Reinforce infection control measures to prevent the spread of influenza.
- Accelerate the training of staff, in accordance with the clinic's pandemic influenza education and training plan.
- Identify, isolate and treat all patients with potential pandemic influenza. Post signs for respiratory hygiene/cough etiquette.
- Implement procedure when reach the trigger point at which screening for signs and symptoms of pandemic influenza in all persons entering the hospital will escalate from passive to active.

### **Occupational Health**

- Instruct all health care workers to report influenza-like illness to the appropriate department.
  - If onset of employee illness occurs during work, instruct the health care worker to don a surgical mask and report to a designated clinical evaluation area.
  - If onset of illness occurs at home, instruct the employee to report by telephone their illness to the designated department and to not report to work until symptoms resolve. Human influenza virus sheds for five (5) – seven (7) days and health care workers will need to stay at home for at least seven (7) days. This recommendation may need to be changed based on the actual epidemiologic characteristics of the pandemic strain if the shedding period is determined to be shorter or longer.
  - Assess whether any employee illness is part of a health care-related cluster of illness.
  - Make psychosocial services available for staff.
  - Clarify time-off policies and procedures for health care providers who are asked to stay at home.
  - Reassign health care providers that are at high risk for complications of influenza to lower risk jobs that do not involve direct care of suspected pandemic patients.

### ***Pandemic influenza reported in the United States***

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Continue hospital surveillance for pandemic influenza.
- Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with a pandemic strain.
- Investigate any clusters of influenza-like illness among staff/visitors or patients, and report to local health department.

**Communication** (Refer to Public Communications Annex)

- Maintain close communication within and among healthcare facilities and with state and local health departments.
  - Monitor EMS system.
  - Publish key messages.
  - Inform patients and visitors about the level of pandemic influenza activity.

## **Education and Training**

- Implement cross training of personnel to provide support for essential patient-care areas at times of severe staffing shortages.

## **Surge Capacity**

- Implement activities to increase capacity, supplement staff and provide supplies and equipment.

## **Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Post signs for respiratory hygiene/cough etiquette.
- Implement procedure when reach the trigger point at which screening for signs and symptoms of pandemic influenza in all persons entering the hospital will escalate from passive to active.

## **Occupational Health**

- Instruct all health care workers to report influenza-like illness to the appropriate department:
  - If onset of employee illness occurs during work, instruct the health care worker to don a surgical mask and report to a designated clinical evaluation area.
  - If onset of illness occurs at home, instruct the employee to report by telephone their illness to the designated department and to not report to work until symptoms resolve. Human influenza virus sheds for five (5) – seven (7) days and health care workers will need to stay at home for at least seven (7) days. This recommendation may need to be changed based on the actual epidemiologic characteristics of the pandemic strain if the shedding period is determined to be shorter or longer.
  - Assess whether any employee illness is part of a health care-related cluster of illness.
  - Make psychosocial services available for staff.
  - Clarify time-off policies and procedures for health care providers who are asked to stay at home.
  - Reassign health care providers that are at high risk for complications of influenza to lower risk jobs that do not involve direct care of suspected pandemic patients.
- Identify, isolate and treat all patients with potential pandemic influenza.

## ***Pandemic influenza in the local area***

Once evidence of person-to-person spread of pandemic influenza is in local area, clinics should activate their National Incident Management System. Assist LPHAs and hospitals implement the Modular Emergency Medical System, as appropriate.

Response to pandemic influenza is assumed to occur primarily in hospitals and primary care centers. Hospitals may not be able to transfer potentially contagious cases/patients, will likely function at full capacity, and may lack adequate critical care capacity. Since the pandemic will be widespread in the United States, the supplies from the Federal Strategic National Stockpile (SNS) may not be available and local caches will need to be relied upon.

In the absence of sufficient antiviral drugs and/or vaccine, general supportive care and intensive care for critically ill patients in hospital settings may be the only health care options available.

The focus will be on steps to take to enhance critical care capacity, as well as ensuring that hospital care is targeted to those likely to survive. It will be essential to leverage the capacity of the primary care system to manage patients with less severe illness and those at lower risk for complications or death. This shift will minimize the impact on acute care hospitals. It is also important to work with both home care and long-term care facilities to help offset the demand for hospital care. Altering normal standards of care and regulatory requirements may be necessary.

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Provide requested data to the EMS system as requested. Requested data may include:
  - Total number of clinic visits and number due to suspected influenza.
- For detection of cases during the Pandemic Period, clinics should:
  - Activate mechanisms for conducting surveillance to detect any increases in influenza-like illness during the early stages of the pandemic.
- Symptoms include fever, headache, myalgia, prostration, coryza, sore throat, and cough. Nausea and vomiting are also commonly reported among children. Typical influenza symptoms, such as fever, may not always be present in elderly patients, young children, patients in long-term care facilities, or persons with underlying chronic illness. (Refer to HHS Pandemic Plan Supplement 5 box 2, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html).)
  - Activate mechanisms for monitoring employee absenteeism for increases that might indicate early cases of pandemic influenza.
  - Keep apprised of types of data that should be reported to state and local health departments.
  - Implement criteria for distinguishing pandemic influenza from other respiratory diseases (Refer to HHS Pandemic Plan Supplement 5, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html).)

**Communications** (Refer to Public Communications Annex)

- Provide effective risk communication messages to gain the public's cooperation and trust in the need to limit clinic visits are for those most likely to benefit.
- With guidance from state or local health department determine methods, frequency and scope of external communications.
- Implement plan on how communications will flow between local and regional health care facilities.

**Education and Training**

- Provide 'just in time' training based on pandemic management planning.
- Design education and training beyond normal scope of practice protocols and just-in-time training to expand healthcare personnel capacity if allowed under executive order.

**Surge Capacity**

- Triage and clinical evaluation
  - Telephone hotlines
    - Utilize algorithms for hotline staff.
    - Provide materials and strategies to inform patients on care-seeking during a pandemic.
    - Inform people whether to stay home or to seek care.
    - Lessen exposure of the "worried well" to persons with influenza.

- Health care networks may designate specific providers, offices, or clinics for patients with influenza-like illness.
- Triage areas should be set up outside the facilities.
- Establish a separate triage and waiting area for persons with respiratory symptoms.
- Assign a triage coordinator to manage patient flow in the clinic area.
- Enforce respiratory hygiene/cough etiquette.
- Provide visual alerts regarding the need for patients with fever and respiratory symptoms to proceed to a specified area and to adhere to respiratory and hand hygiene precautions.
- Hand hygiene materials and masks should be readily available in all waiting room areas.
- Home health care providers can provide follow-up for those managed at home.
- Serve as a source of information to community members and leaders on measures that can be taken to protect health and when to seek care.
- Provide mental health services or referrals for the community.
- Maintain essential outpatient medical services for non-pandemic influenza patients.
- Consider having separate hours for seeing non-pandemic related patients.
- Request personnel protective equipment and supplies as needed from DHSS.

**Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Setting-specific infection control issues should also be considered.

### **Security**

- Facility access
  - Limit number of visitors.
  - Limit points of entry to facility.
  - Assign clinical staff to entry screening.

### **Occupational Health**

- Consider furlough or reassignment of pregnant staff and other staff at high risk for complications of influenza.
- Implement system for detecting and reporting signs and symptoms of influenza in staff reporting for duty.
- Provide staff with antivirals prophylaxis, according to HHS and DHSS guidelines.
- Activate family preparedness plans.

### **Home Health Care Services**

Home Health Agencies will likely be called upon to provide care for patients who do not require hospitalization for pandemic influenza, or for whom hospitalization is not an option because hospitals have reached their capacity to admit patients. These agencies may become overburdened very quickly and shortages of personnel and supplies providing home health care may occur.

## **Pandemic Influenza Level: *Interpandemic and Pandemic Alert Periods***

*The phases described have been summarized from the World Health Organization (WHO) global influenza preparedness plan published in 2005. It is important to understand that actual spread of the virus may or may not be described by these phases.*

### **Interpandemic Period**

**Phase 1:** No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.

**Phase 2:** No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

### **Pandemic Alert Period**

**Phase 3:** Human infection(s) with a new subtype, but no human-to-human spread, or at most, rare instances of spread to a close contact.

### **Health Care Planning**

- Develop planning and decision making structures for responding to pandemic influenza.
- Develop a written pandemic influenza plan. (Refer to Attachment G)
- Establish a planning committee.
- Utilize the checklist from DHHS to develop individual plans that address:
  - Communications
    - External: Work with public health officials, other government officials, neighboring healthcare facilities, the lay public, and the press to ensure rapid and ongoing information sharing during an influenza pandemic.
    - Internal: Determine how to keep administrators, personnel, patients, and visitors informed of the ongoing impact of pandemic influenza on the facility and on the community.
  - Education and training
    - Develop an education and training plan that addresses the needs of staff, patients, and family members.
    - Assign responsibility for coordination of the education and training program.
    - Identify training materials in different languages and at different reading levels, as needed.
  - Occupational Health
    - Develop a plan to:
      - Protect healthy workers from exposures in the health care setting.
      - Evaluate and manage symptomatic and ill healthcare personnel.
      - Distribute and administer antiviral drugs and/or vaccines to health care personnel as recommended.
      - Provide psychosocial services to health care workers and their families.
    - Determine how “just in time” refresher training and education will be provided for all health care personnel at the start of the pandemic influenza outbreak.
    - Develop work restriction policies, including clear guidance on the need for staff to stay home in the event of fever and respiratory symptoms.



- Develop a strategy for regularly updating staff on the current status of the pandemic and any changes in the recommendations for management of influenza patients.
- Develop a plan to provide for staff's physical and mental health needs at work.
- Designate appropriate staff to be responsible for monitoring of employee health and adherence to appropriate infection control measures.
- Promote annual influenza vaccination among staff.
- Ensure a system is in place for documenting influenza vaccinations of healthcare personnel.
- Establish a strategy for rapidly vaccinating or providing antiviral prophylaxis or treatment to staff as recommended.
- Provide information to staff regarding the importance of creating family emergency preparedness plans in advance of an emergency.
- Infection control (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))
- Management of patients during a pandemic
  - How to manage patient care during the height of a pandemic to accommodate the increased numbers of patients.
  - Scope of services agency will provide.
  - Role and responsibility of the agency regarding distribution of infection control supplies, food, etc., to homes.
  - Decision tools for determining which patients can have altered service schedules based on their health needs.
  - Criteria for the disposition of patients from hospitals to home care agency.
  - Collaboration with social service agencies.
  - How to maintain a database of clients who require electrically-dependent technology-driven care, oxygen, special nutrition requirements, dialysis, etc.
- Vaccines (Refer to Vaccine and Antiviral Storage and Distribution Annex)
  - Potential role of the home health agency in the distribution of vaccine and antivirals in the community.
- Surge Capacity
  - How to manage staff shortages.
  - Priorities for providing care.
  - Anticipated consumable resource needs.
  - Process for requesting and obtaining assets.
- Mental health concerns of all health care workers need to be considered in planning for influenza patients. (Refer to Mental Health Annex)
- Develop a policy to address staff that refuses to work with influenza patients.

### **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

Surveillance will include the need for agencies to have systems in place during the pandemic alert period to identify patients at risk for infections with novel influenza strains.

### **Communications** (Refer to Public Communications Annex)

Each agency should work with public health officials, other government officials, neighboring healthcare facilities, the public and the press to ensure rapid and ongoing information sharing during an influenza pandemic.

- Assure redundant communication systems are in place.
- Assure systems are in place to receive and distribute health alerts.
- Collaborate with hospitals that serve the same population to establish telephone hotlines.
- Have round the clock contact telephone numbers, and current call-down list.
- Create a contact list of key community partners, including DHSS, LPHA, local emergency operations centers and other health care providers.
- Maintain an up-to-date patient roster and prioritize those patients according to the number of visits and type of care required.

## **Education/Training**

- Staff Education
  - Identify educational resources for staff.
  - General topics for staff education should include:
    - Prevention and control of influenza
    - Implications of pandemic influenza
    - Benefits of annual influenza vaccination
    - Role of antiviral drugs in preventing disease and reducing rates of severe influenza and its complications
    - Infection control strategies
    - Creating family emergency preparedness plans
  - Clinic-specific topics
    - Policies and procedures for the care of pandemic influenza patients
    - Pandemic staffing contingency plans
    - Reporting to the health department
    - Measures to protect family and other close contacts

## **Surge Capacity: Consumable and Durable Supplies** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Consider stockpiling enough consumable resources, such as personal protective equipment, for the duration of a pandemic wave.
- Evaluate existing systems for tracking available medical supplies to ensure they are capable of detecting rapid consumption.
- Anticipate needs for antibiotics to treat bacterial complications of influenza and determine how supplies can be maintained during a pandemic.

## **Exercises**

- Participate in pandemic influenza response exercises and drills and incorporate lessons learned into response plans.

## **Phase 4**

*Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well-adapted to humans.*

## **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Initiate heightened surveillance.
- Provide daily surveillance information to local health department on request.

## **Surge Capacity**

- Determine availability of critical equipment and medicines.

## **Vaccine** (Refer to Vaccine and Antiviral Storage and Distribution Annex)

- Coordinate with LPHA to determine needed doses of vaccine and antivirals for identified high priority populations.

## **Phase 5**

*Large cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).*

## **Health Care Planning**

- Implement pandemic influenza plan.

## **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Maintain heightened surveillance.
- Assure laboratory testing is accomplished. Collaborate with the SPHL as appropriate.

## **Communication** (Refer to Public Communications Annex)

- Communicate updates to LPHA and DHSS as requested.
- Monitor bulletins and events related to the novel influenza virus.
- Keep apprised of Health Alerts. Distribute according to plan.
- Consult with LPHA and DHSS regarding communication strategies.

## **Surge Capacity**

- Evaluate resources available to manage surge of patients with pandemic influenza.

## **Phase 6**

*Pandemic; increased and sustained transmission in general population.*

## ***Pandemic influenza outside the United States***

## **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Monitor public health advisories.
- Ensure that key staff are current on information provided by Health Alert Network.
- Conduct surveillance on all patients.
- Monitor employee absenteeism for increases that might indicate early cases of pandemic influenza.
- Provide infection data to state or local health department through regular reporting methods, Biosense or EMSystem, if requested.
- Implement a system for early detection and antiviral treatment of staff who might be infected with the pandemic strain of influenza virus.
- Continue surveillance for pandemic influenza.

- Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain.
- Investigate any clusters of influenza-like illness among staff or patients and report to local health department.

#### **Communication** (Refer to Public Communications Annex)

- Establish contact with key public health, healthcare and community partners.
  - Designated staff that should be instructed to check daily e-mail, health alerts and the DHSS web-site for updates.
  - Designate staff to participate in videoconferences, as appropriate.
  - Designate staff to attend local, regional and statewide meetings regarding pandemic influenza.
- Maintain close communication within and among health care facilities and with state and local health departments.
  - Inform patients and families about the level of pandemic influenza activity.

#### **Education and Training**

- Accelerate the training of staff, in accordance with the agency's pandemic influenza education and training plan.
  - Identify, isolate and treat all patients with potential pandemic influenza.

#### **Surge Capacity**

- Implement activities to increase capacity, supplement staff and provide supplies and equipment.

#### **Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Reinforce infection control measures to prevent the spread of influenza.
  - Post signs for respiratory hygiene/cough etiquette.
  - Implement procedure when the trigger point reached, at which screening for signs and symptoms of pandemic influenza in all persons entering the hospital will escalate from passive to active.
    - Contain infectious respiratory secretions.
- Setting specific infection control issues should also be considered.

#### **Occupational Health**

- Instruct all health care workers to report influenza-like illness to the appropriate department:
  - If onset of employee illness occurs during work, instruct the health care worker to don a surgical mask and report to a designated clinical evaluation area.
  - If onset of illness occurs at home, instruct the employee to report by telephone their illness to the designated department and to not report to work until symptoms resolve. Human influenza virus sheds for five (5) – seven (7) days and health care workers will need to stay at home for at least seven (7) days. This recommendation may need to be changed based on the actual epidemiologic characteristics of the pandemic strain if the shedding period is determined to be shorter or longer.
  - Assess whether any employee illness is part of a health care-related cluster of illness.

- Make psychosocial services available for staff.
- Clarify time-off policies and procedures for health care providers who are asked to stay at home.
- Reassign health care providers that are at high risk for complications of influenza to lower risk jobs that do not involve direct care of suspected pandemic patients.

### ***Pandemic influenza reported in the United States***

#### **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Continue hospital surveillance for pandemic influenza.
- Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain.
- Investigate any clusters of influenza-like illness among staff/visitors or patients, and report to local health department.

#### **Communication** (Refer to Public Communications Annex)

- Maintain close communication within and among healthcare facilities and with state and local health departments.
  - Monitor EMS system.
  - Publish key messages.
  - Inform patients and visitors about the level of pandemic influenza activity.

#### **Education and Training**

- Implement cross-training of personnel to provide support for essential patient care areas at times of severe staffing shortages.

#### **Surge Capacity**

- Implement activities to increase capacity, supplement staff and provide supplies and equipment.

#### **Infection control measures** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Post signs highlighting respiratory hygiene/cough etiquette.
- Implement procedure when the trigger point reached, at which screening for signs and symptoms of pandemic influenza in all persons entering the hospital will escalate from passive to active.
- Identify, isolate and treat all patients with potential pandemic influenza.

#### **Occupational Health**

- Instruct all health care workers to report influenza-like illness to the appropriate department:
  - If onset of employee illness occurs during work, instruct the health care worker to don a surgical mask and report to a designated clinical evaluation area.
  - If onset of illness occurs at home, instruct the employee to report by telephone their illness to the designated department and to not report to work until symptoms resolve. Human influenza virus sheds for five (5) – seven (7) days and health care workers will need to stay at home for at least seven (7) days. This recommendation may need

- to be changed based on the actual epidemiologic characteristics of the pandemic strain if the shedding period is determined to be shorter or longer.
- Assess whether any employee illness is part of a health care-related cluster of illness.
- Make psychosocial services available for staff.
- Clarify time-off policies and procedures for health care providers who are asked to stay at home.
- Reassign health care providers that are at high risk for complications of influenza to lower risk jobs that do not involve direct care of suspected pandemic patients.

### ***Pandemic influenza in the local area***

Once evidence of person-to-person spread of pandemic influenza is in the local area, clinics should activate their National Incident Management System. Assist LPHAs and hospitals implement the Modular Emergency Medical System, as appropriate.

Response to pandemic influenza is assumed to occur primarily in hospitals and primary care centers. Hospitals may not be able to transfer potentially contagious cases/patients, will likely function at full capacity, and may lack adequate critical care capacity. Since the pandemic will be widespread in the United States, the supplies from the Federal Strategic National Stockpile (SNS) may not be available and local caches will need to be relied upon.

In the absence of sufficient antiviral drugs and/or vaccine, general supportive care and intensive care for critically ill patients in hospital settings may be the only health care options available. The focus will be on steps to take to enhance critical care capacity, as well as ensuring that hospital care is targeted to those likely to survive. It will be essential to leverage the capacity of the primary care system and home health agencies to manage patients with less severe illness and those at lower risk for complications or death. This shift will minimize the impact on acute care hospitals. Altering normal standards of care and regulatory requirements may be necessary. Collaboration with hospitals, local pandemic planning committees and public health agencies will be essential to ensure that affected population receives needed health care services.

### **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Provide requested data to the local public health agency as requested. Requested data may include:
  - Total number of home health visits and number due to suspected influenza.
- For detection of cases during the Pandemic Period, agencies should:
  - Activate mechanisms for conducting surveillance to detect any increases in influenza-like illness during the early stages of the pandemic.
    - Symptoms include fever, headache, myalgia, prostration, coryza, sore throat, and cough. Nausea and vomiting are also commonly reported among children. Typical influenza symptoms, such as fever, may not always be present in elderly patients, young children, or persons with underlying chronic illness. (Refer to HHS Pandemic Plan Supplement 5 box 2, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))
  - Activate mechanisms for monitoring employee absenteeism for increases that might indicate early cases of pandemic influenza.

- Keep apprised of types of data that should be reported to state and local health departments.
- Implement criteria for distinguishing pandemic influenza from other respiratory diseases. (Refer to HHS Pandemic Plan Supplement 5, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

### **Communications** (Refer to Public Communications Annex)

- Provide effective risk communication messages to gain the public's cooperation and trust in the need to limit home health visits are for those most likely to benefit.
- Implement plan on how communications will flow between local and regional health care facilities.

### **Education and Training**

- Provide 'just in time' training based on pandemic management planning.

### **Surge Capacity**

- Triage and clinical evaluation
  - Telephone hotlines
    - Utilize algorithms for hotline staff.
    - Provide materials and strategies to inform patients on care seeking during a pandemic.
    - Inform people whether to stay home or to seek care.
    - Lessen exposure of the "worried well" to persons with influenza.
  - Health care networks may designate specific providers, offices, or clinics for patients with influenza-like illness.
  - For patients with suspected influenza, assess for potential isolation and use of infection control precautions.
  - Enforce respiratory hygiene/cough etiquette.
  - Home health care providers can provide follow-up for those managed at home.
  - Serve as a source of information to community members and leaders on measures that can be taken to protect health and when to seek care.
  - Provide mental health services or referrals for the community.
  - Maintain essential home health services for non-pandemic influenza patients.
- Implement surge plan; work with all available resources to provide necessary services to homebound patients in coordination with the patient's family and provider.
- Consider cohorting patients to expand staffing and save travel time.
- Maintain frequent contact to assess patient needs and the continued availability of backup caregiver support, as the health of these individuals may change rapidly and unpredictably.
- Request personnel protective equipment and supplies as needed from DHSS.

### **Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Setting-specific infection control issues should also be considered.



## Occupational Health

- Consider furlough or reassignment of pregnant staff and other staff at high risk for complications of influenza.
- Implement system for detecting and reporting signs and symptoms of influenza in staff reporting for duty.
- Provide staff with antivirals prophylaxis, according to HHS and DHSS guidelines.
- Activate family preparedness plans.

## Long-Term Care

Residents of nursing homes and other long-term care residential facilities will be at particular risk for transmissions of pandemic influenza and disease complications. Pandemic influenza can be introduced through facility personnel and visitors; once a pandemic influenza virus enters such facilities, controlling its spread is problematic. Therefore, as soon as pandemic influenza has been detected in the region, nursing homes and other residential facilities should implement aggressive measures to prevent introduction of the virus.

It is critical that long-term care facilities plan for Pandemic Influenza to ensure a sustainable health care response. Based on differences among facilities (e.g. patient/resident characteristics, facility size, scope of services, hospital affiliation), each facility will need to adapt their plan to meet its unique needs and concerns. It is recommended that the facilities collaborate with the DHSS' Division of Health Standards and Licensure throughout the planning process and during each phase of the pandemic event.

## Pandemic Influenza Level: *Interpandemic and Pandemic Alert Periods*

*The phases described have been summarized from the World Health Organization (WHO) global influenza preparedness plan published in 2005. It is important to understand that actual spread of the virus may or may not be described by these phases.*

### Interpandemic Period

**Phase 1:** No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.

**Phase 2:** No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

### Pandemic Alert Period

**Phase 3:** Human infection(s) with a new subtype, but no human-to-human spread, or at most, rare instances of spread to a close contact.

## Health Care Planning (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Develop planning decision making structures for responding to pandemic influenza.
- Develop a written pandemic influenza plan. (Refer to Attachment H)
- Establish a planning committee.
- Utilize the checklist from DHHS to develop individual plans that address:
  - Communications



- External: Work with public health officials, other government officials, neighboring healthcare facilities, the lay public, and the press to ensure rapid and ongoing information sharing during an influenza pandemic.
- Internal: Determine how to keep administrators, personnel, patients, and visitors informed of the ongoing impact of pandemic influenza on the facility and on the community.
- Education and training
  - Develop an education and training plan that addresses the needs of staff, patients, and family members.
  - Assign responsibility for coordination of the education and training program.
  - Identify training materials in different languages and at different reading levels, as needed.
- Occupational Health
  - Develop a plan to:
    - Protect healthy workers from exposures in the healthcare setting.
    - Evaluate and manage symptomatic and ill healthcare personnel.
    - Distribute and administer antiviral drugs and/or vaccines to healthcare personnel as recommended.
    - Provide psychosocial services to health care workers and their families.
  - Determine how “just in time” refresher training and education will be provided for all health care personnel at the start of the pandemic influenza outbreak.
  - Develop work restriction policies, including clear guidance on the need for staff to stay home in the event of fever and respiratory symptoms.
  - Develop a strategy for regularly updating staff on the current status of the pandemic and any changes in the recommendations for management of influenza patients.
  - Develop a plan to provide for staff’s physical and mental health needs at work.
  - Designate appropriate staff to be responsible for monitoring of employee health and adherence to appropriate infection control measures.
  - Promote annual influenza vaccination among staff.
  - Ensure a system is in place for documenting influenza vaccination status of health care personnel.
  - Establish a strategy for rapidly vaccinating or providing antiviral prophylaxis or treatment to staff as recommended.
  - Provide information to staff regarding the importance of creating family emergency preparedness plans in advance of an emergency.
  - Mental health concerns of all health care workers need to be considered in planning for influenza patients. (Refer to Mental Health Annex)
  - Develop a policy to address staff that refuses to work with influenza patients.
- Infection control (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))
- Management of patients during a pandemic
  - How to manage patient care during the height of a pandemic to accommodate the increased numbers of patients.
  - Criteria for the disposition of patients from facility to hospital.
- Vaccines (Refer to Vaccine and Antiviral Storage and Distribution Annex)
  - How vaccines will be made available to the facility.

- Use and administration of vaccines and antiviral drugs.
- Surge Capacity
  - How to manage staff shortages.
  - Priorities for providing care.
  - Anticipated consumable resource needs.
  - Process for requesting and obtaining assets.
  - How to deal with mass fatalities.
  - Alternative care plans for facility residents who need acute care services when hospital beds become unavailable.
  - Strategies to help increase hospital bed capacity in the community.
  - Identify facility space that could be adapted for use as expanded inpatient beds and information provided to local and regional planning contacts.

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

Surveillance will include the need for agencies to have systems in place during the pandemic alert period to identify residents at risk for infections with novel influenza strains.

**Communications** (Refer to Public Communications Annex)

- Each agency should work with public health officials, other government officials, neighboring healthcare facilities, the public and the press to ensure rapid and ongoing information sharing during an influenza pandemic.
- Assure redundant communication systems are in place.
- Assure systems are in place to receive and distribute health alerts.
- Have round the clock contact telephone numbers, and current call-down list.
- Create a contact list of key community partners, including DHSS, LPHA, local emergency operations centers and other health care providers.
- MOA
- Sign agreements with area hospitals for admission to the long-term care facility of non-influenza patients to facilitate utilization of acute care resources for more seriously ill patients.

**Education/Training**

- Staff Education
  - Identify educational resources for staff.
  - General topics for staff education should include:
    - Prevention and control of influenza
    - Implications of pandemic influenza
    - Benefits of annual influenza vaccination
    - Role of antiviral drugs in preventing disease and reducing rates of severe influenza and its complications
    - Infection control strategies
    - Creating family emergency preparedness plans
  - Clinic-specific topics
    - Policies and procedures for the care of pandemic influenza patients
    - Pandemic staffing contingency plans
    - Reporting to the health department
    - Measures to protect family and other close contacts

- Train staff to detect patients with influenza symptoms and to implement immediate containment measures to prevent transmission. (Refer to HHS Pandemic Plan Supplement 5, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

**Surge Capacity** (Refer to [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html))

- Consider stockpiling enough consumable resources such as personal protective equipment for the duration of a pandemic wave.
- Evaluate existing systems for tracking available medical supplies to ensure they are capable of detecting rapid consumption.
- Anticipate needs for antibiotics to treat bacterial complications of influenza and determine how supplies can be maintained during a pandemic.

**Exercises**

- Participate in pandemic influenza response exercises and drills, and incorporate lessons learned into response plans.

**Phase 4**

*Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well-adapted to humans.*

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Initiate heightened surveillance.
- Provide daily surveillance information to local health department on request.

**Surge Capacity**

- Determine availability of critical equipment and medicines.

**Vaccines** (Refer to Vaccine and Antiviral Storage and Distribution Annex)

- Coordinate with LPHA to determine needed doses of vaccine and antivirals for identified high priority populations.

**Phase 5**

*Large cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).*

**Health Care Planning**

- Implement pandemic influenza plan.

**Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Monitor bulletins and events related to the novel influenza virus.
- Keep apprised of Health Alerts. Distribute according to plan.
- Maintain heightened surveillance.
- Assure laboratory testing is accomplished. Collaborate with the State Public Health Laboratory as appropriate

**Communication** (Refer to Public Communications Annex)

- Communicate updates to LPHA and DHSS as requested.
- Consult with LPHA and DHSS regarding communication strategies.

**Surge Capacity**

- Evaluate resources available to manage surge of patients with pandemic influenza.
- Coordinate with hospitals to receive patients from skilled units as appropriate.

**Pandemic Level: *Pandemic Period******Phase 6***

*Pandemic; increased and sustained transmission in general population.*

The primary goal during the pandemic period is to enhance the capacity of the healthcare system to care for the increase burden of illness due to the pandemic.

**Pandemic influenza outside the United States****Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Monitor employee absenteeism for increases that might indicate early cases of pandemic influenza.
- Implement a system for early detection and antiviral treatment of healthcare workers who might be infected with the pandemic strain of influenza.
- Continue surveillance for pandemic influenza.
- Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain.

**Communication** (Refer to Public Communications Annex)

- Establish contact with key public health, healthcare and community partners.
  - Designated staff that should be instructed to check daily e-mail, health alerts and the DHSS web site for updates.
  - Designate staff to participate in videoconferences, as appropriate.
  - Designate staff to attend local, regional and statewide meetings regarding pandemic influenza.

**Education/ Training**

- Accelerate the training of staff, in accordance with the agency's pandemic influenza education and training plan.

**Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Identify, isolate and treat all patients with potential pandemic influenza.
- Isolate all family members, volunteers and visitors with upper respiratory symptoms from the nursing home population.
- Post signs highlighting respiratory hygiene/cough etiquette.

- Implement procedure when the trigger point is reached, at which screening for signs and symptoms of pandemic influenza in all residents and visitors to the facility, will escalate from passive to active.

### ***Pandemic influenza reported in the United States***

#### **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Monitor public health advisories.
- Ensure that key staff are current on information provided by Health Alert Network.
- Conduct surveillance on all patients.
- Monitor employee absenteeism for increases that might indicate early cases of pandemic influenza.
- Provide to state or local health department through regular reporting methods or through if requested.
- Implement a system for early detection and antiviral treatment of staff who might be infected with the pandemic strain of influenza virus
  - Continue facility surveillance for pandemic influenza.
  - Maintain high index of suspicion that patients presenting with influenza-like illness could be infected with pandemic strain.
  - Investigate any clusters of influenza-like illness among staff/visitors or residents, and report to local health department.

#### **Communication** (Refer to Public Communications Annex)

- Maintain close communication within and among health care facilities and with state and local health departments.

#### **Education and Training**

- Implement cross training of personnel to provide support for essential patient-care areas at times of severe staffing shortages.

#### **Surge Capacity**

- Implement activities to increase capacity, supplement staff and provide supplies and equipment.

#### **Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Identify, isolate and treat all patients with potential pandemic influenza.
- Post signs for respiratory hygiene/cough etiquette.
- Implement procedure when reach the trigger point at which screening for signs and symptoms of pandemic influenza in all residents will escalate from passive to active.

#### **Occupational Health**

- Instruct all health care workers to report influenza-like illness to the appropriate department:
  - If onset of employee illness occurs during work, instruct the health care worker to don a surgical mask and report to a designated clinical evaluation area.

- If onset of illness occurs at home, instruct the employee to report by telephone their illness to the designated department and to not report to work until symptoms resolve. Human influenza virus sheds for five (5) – seven (7) days and health care workers will need to stay at home for at least seven (7) days. This recommendation may need to be changed based on the actual epidemiologic characteristics of the pandemic strain if the shedding period is determined to be shorter or longer.
- Assess whether any employee illness is part of a health care-related cluster of illness.
- Make psychosocial services available for staff.
- Clarify time-off policies and procedures for health care providers who are asked to stay at home.
- Reassign health care providers that are at high risk for complications of influenza to lower risk jobs that do not involve direct care of suspected pandemic patients.

### ***Pandemic influenza in the local area***

Once evidence of person-to-person spread of pandemic influenza is in local area, clinics should activate their National Incident Management System and assist LPHAs and hospitals in the implementation of the Modular Emergency Medical System, as appropriate.

Response to pandemic influenza is assumed to occur primarily in hospitals and primary care centers. Hospitals may not be able to transfer potentially contagious cases/patients, will likely function at full capacity, and may lack adequate critical care capacity. Since the pandemic will be widespread in the United States, the supplies from the Federal Strategic National Stockpile (SNS) may not be available and local caches will need to be relied upon.

In the absence of sufficient antiviral drugs and/or vaccine, general supportive care and intensive care for critically ill patients in hospital settings may be the only health care options available. The focus will be on steps to take to enhance critical care capacity, as well as ensuring that hospital care is targeted to those likely to survive. It will be essential to leverage the capacity of the primary care system and home health agencies to manage patients with less severe illness and those at lower risk for complications or death. This shift will minimize the impact on acute care hospitals and collaboration with long-term care facilities is essential. Altering normal standards of care and regulatory requirements may be necessary. Collaboration with hospitals, local pandemic planning committees and public health agencies will be essential to ensure that affected population receives needed health care services.

### **Surveillance** (Refer to Surveillance Investigation and Data Information Sharing Annex)

- Provide requested data to the local public health agency as requested. Requested data may include:
  - Total number of home health visits and number due to suspected influenza.
- For detection of cases during the Pandemic Period, agencies should:
  - Activate mechanisms for conducting surveillance to detect any increases in influenza-like illness during the early stages of the pandemic.
    - Symptoms include fever, headache, myalgia, prostration, coryza, sore throat, and cough. Nausea and vomiting are also commonly reported among children. Typical influenza symptoms, such as fever, may not always be present in elderly patients, young children, or persons with underlying chronic illness. (Refer to

HHS Pandemic Plan Supplement 5 box 2,  
[www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Activate mechanisms for monitoring employee absenteeism for increases that might indicate early cases of pandemic influenza.
- Keep apprised of types of data that should be reported to state and local health departments.
- Implement criteria for distinguishing pandemic influenza from other respiratory diseases. (Refer to HHS Pandemic Plan Supplement 5, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

#### **Communications** (Refer to Public Communications Annex)

- Provide effective risk communication messages to gain the public's cooperation and trust in the need to limit home health visits are for those most likely to benefit.
- Implement plan on how communications will flow between local and regional health care facilities.

#### **Education and Training**

- Provide 'just in time' training based on pandemic management planning.

#### **Surge Capacity**

- Implement surge plan; work with all available resources to provide necessary services to patients in coordination with the patient's family and provider.
- Request personnel protective equipment and supplies as needed from DHSS.

#### **Security**

- Limit number of visitors.
- Limit points of entry to facility.
- Triage all persons entering building.

#### **Infection Control** (Refer to [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html) and [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html))

- Provide materials and strategies to inform patients and their visitors.
- Inform visitors whether to stay away from the facility.
- For patients with suspected influenza, assess for potential isolation and use of infection control precautions.
- Consider a hospice plan for expectant patients.

#### **Occupational Health**

- Consider furlough or reassignment of pregnant staff and other staff at high risk for complications of influenza.
- Implement system for detecting and reporting signs and symptoms of influenza in staff reporting for duty.
- Provide staff with antivirals prophylaxis, according to HHS and DHSS guidelines.
- Activate family preparedness plans.

## ***Attachment A – Modular Medical System Overview***

In order to manage the potentially huge casualty load that would result from a covert bioterrorist attack, the Biological Warfare Improved Response Program (BWIRP) team developed the Modular Emergency Medical System (MEMS) concept. The MEMS addresses the gap in casualty care resources that would exist in most medical care jurisdictions today if a large number of persons were to seek treatment from neighborhood area hospitals. The MEMS is based on the rapid organization of two types of expandable patient care modules, the Neighborhood Emergency Help Center (NEHC) and the Acute Care Center (ACC). The MEMS concept also includes a Medical Command and Control (MCC) element, Casualty Transportation System (CTS), Community Outreach, Mass Prophylaxis, and Public Information components.

The intent of the ACC is to integrate proven, effective concepts to maximize the strategy's application while minimizing the training required for its implementation. Although the ACC was designed specifically for managing casualties during a bioterrorist event, it may also be useful in responding to any catastrophic medical emergency. Many of the fundamental premises of commanding, controlling, and managing the incident are consistent with those of the Human Resources Services Administration (HRSA) Bioterrorism Hospital Preparedness Program, and the Hospital Emergency Incident Command System (HEICS) developed by the State of California Emergency Medical Services Authority. The ACC model defines responsibilities, provides a logistical management structure, and specifies clear reporting channels. In addition, the ACC concept makes use of the National Response Plan's (NRP) Emergency Support Function #8 (ESF #8) Health and Medical Service Annex.



**Attachment B**  
**Flu Surge - Missouri –**

# Main Menu

**Step 1: Determine population of locale by age groups:**

Age Group	Population
0-19 yrs	1,545,754
20-64 yrs	3,481,385
+ 65 yrs	773,171

Enter Data  
in WHITE  
boxes only!

[View or  
Change  
Assump-  
tions](#)

**Step 2: Determine basic hospital resources:**

Total licensed non-ICU beds:	20,856
% licensed non-ICU beds staffed:	60%
Total staffed non-ICU beds:	12,514
Total licensed ICU beds:	2,137
% licensed ICU beds staffed:	60%
Total Staffed ICU beds:	1,282
Total number of ventilators:	1,400
% ventilators available:	100%
Total number of ventilators available:	1,400

**Step 3: Determine duration (6, 8, or 12 weeks) and attack rate (15%, 25% or 35%) of the pandemic:**

Duration: 8 ▼

Attack rate: 35% ▼

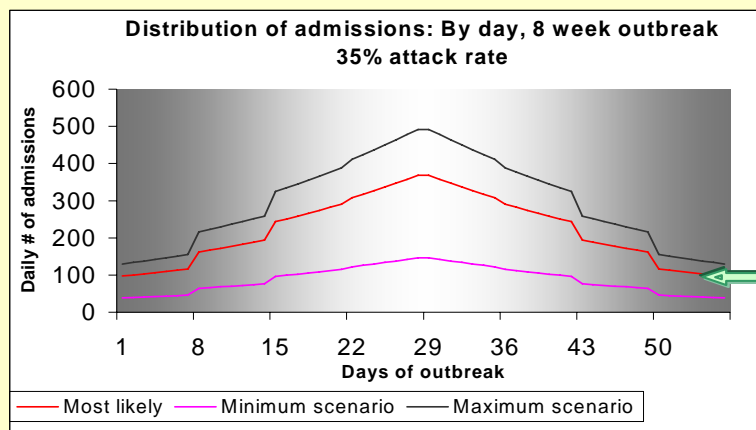
**Step 4:**

Notes: 1. Sample data are from Metropolitan Atlanta.

2. Duration (pandemic duration) refers to the number of weeks you assume the pandemic wave to last.

3. Attack rate (gross clinical attack rate) refers to the percentage of the population that becomes clinically ill due to pandemic influenza.

## Attachment C – Flu Surge – St. Louis



Total Hospital Admissions (most likely)	<b>12,439</b>
Total Deaths (most likely)	<b>2,465</b>

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8	9	10
Hospital Admission	Weekly admissions	746	1,244	1,866	2,363	2,363	1,866	1,244	746		
	Peak admissions/day				368	<b>368</b>					
Hospital Capacity	# of influenza patients in hospital	549	914	1,372	1,737	1,799	1,581	1,213	795		
	% of hospital capacity needed	10%	16%	24%	30%	<b>31%</b>	28%	21%	14%		
ICU Capacity	# of influenza patients in ICU	112	237	365	482	521	507	403	278		
	% of ICU capacity needed	20%	43%	65%	86%	<b>93%</b>	91%	72%	50%		
Ventilator Capacity	# of influenza patients on ventilators	56	119	182	241	261	254	201	139		
	% usage of ventilator	16%	34%	52%	69%	<b>74%</b>	72%	58%	40%		
Deaths	# of deaths from influenza			148	246	370	468	468	370	246	148
	# of influenza deaths in hospital			104	173	259	328	328	259	173	104

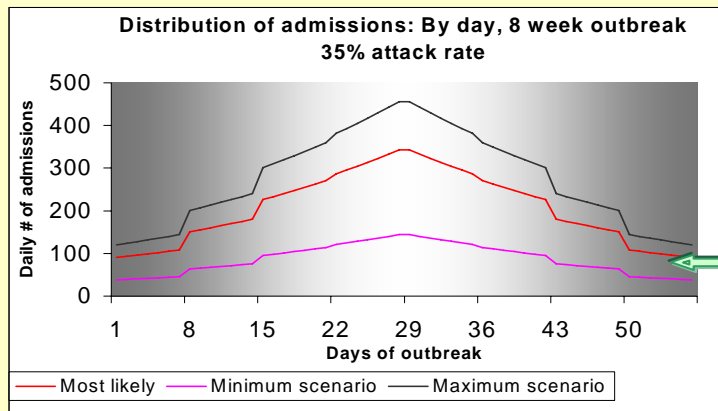
Notes: 1. All results showed in this table are based on most likely scenario.

2. Number of influenza patients in hospital, in ICU, and number of influenza patients on ventilators are based on maximum daily number in a relevant week.

3. Hospital capacity used, ICU capacity used, and % usage of ventilator are calculated as a percentage of total capacity available (see manual for details).

4. The maximum number of influenza patients in the hospital each week is lower than the number of weekly admissions because we assume

## Attachment C Flu Surge – Kansas City –



Total Hospital Admissions (most likely)	11,570
Total Deaths (most likely)	2,367

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8	9	10
Hospital Admission	Weekly admissions	694	1,157	1,736	2,198	2,198	1,736	1,157	694		
	Peak admissions/day				343	343					
Hospital Capacity	# of influenza patients in hospital	510	850	1,276	1,616	1,673	1,471	1,128	740		
	% of hospital capacity needed	14%	23%	34%	44%	45%	40%	30%	20%		
ICU Capacity	# of influenza patients in ICU	104	221	339	448	485	472	375	259		
	% of ICU capacity needed	23%	48%	74%	98%	106%	103%	82%	57%		
Ventilator Capacity	# of influenza patients on ventilators	52	110	170	224	242	236	187	129		
	% usage of ventilator	21%	44%	68%	90%	97%	94%	75%	52%		
Deaths	# of deaths from influenza			142	237	355	450	450	355	237	142
	# of influenza deaths in hospital			99	166	249	315	315	249	166	99

Notes: 1. All results showed in this table are based on most likely scenario.  
2. Number of influenza patients in hospital, in ICU, and number of influenza patients on ventilators are based on maximum daily number in a relevant week.  
3. Hospital capacity used, ICU capacity used, and % usage of ventilator are calculated as a percentage of total capacity available (see manual for details).  
4. The maximum number of influenza patients in the hospital each week is lower than the number of weekly admissions because we assume a 5-day stay in general wards (see manual for details).

## ***Attachment D – Hospital Checklist***

Preparedness Subject	Actions Needed
1. Structure for planning and decision making	
<ul style="list-style-type: none"> <li>An internal, multidisciplinary planning committee for influenza preparedness has been created.</li> </ul>	
<ul style="list-style-type: none"> <li>A person has been designated as the influenza preparedness coordinator. (Insert name) _____</li> </ul>	
<ul style="list-style-type: none"> <li>Members of the planning committee include the following hospital staff members (insert names) <ul style="list-style-type: none"> <li>Administration _____</li> <li>Legal counsel _____</li> <li>Infection control _____</li> <li>Hospital disaster coordinator _____</li> <li>Risk management _____</li> <li>Facility engineering _____</li> <li>Nursing administration _____</li> <li>Medical staff _____</li> <li>Intensive care _____</li> <li>Emergency Department _____</li> <li>Laboratory services _____</li> <li>Respiratory therapy _____</li> <li>Psychiatry _____</li> <li>Environmental services _____</li> <li>Public relations _____</li> <li>Security _____</li> <li>Materials management _____</li> <li>Staff development _____</li> <li>Occupational health _____</li> <li>Diagnostic imaging _____</li> <li>Pharmacy _____</li> <li>Information technology _____</li> <li>Other members _____</li> <li>Other members _____</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>A state or local health department person has been identified as a committee liaison. (Insert name) _____</li> <li>A linkage with local or regional emergency preparedness groups has been established (Planning organization) _____</li> </ul>	
2. Development of a written pandemic influenza plan	
<ul style="list-style-type: none"> <li>A written plan has been completed or is in progress that includes the elements listed in #3 below.</li> </ul>	
<ul style="list-style-type: none"> <li>The plan specifies the circumstances under which the plan will be activated.</li> </ul>	

<ul style="list-style-type: none"> <li>• The plan describes the organization structure that will be used to operationalize the plan.</li> </ul>	
<ul style="list-style-type: none"> <li>• Responsibilities of key personnel related to executing the plan have been described.</li> </ul>	
<ul style="list-style-type: none"> <li>• A simulation exercise has been developed to test the effectiveness of the plan.</li> </ul>	
<ul style="list-style-type: none"> <li>• A simulation exercise has been performed. (Date performed _____)</li> </ul>	
3. Elements of an influenza pandemic plan	
<ul style="list-style-type: none"> <li>• A <b>surveillance plan</b> has been developed. <ul style="list-style-type: none"> <li>○ Syndromic surveillance has been established in the emergency room.</li> <li>○ Criteria for distinguishing pandemic influenza is part of the syndromic surveillance plan.</li> <li>○ Responsibility has been assigned for reviewing global, national, regional, and local influenza activity trends and informing the pandemic influenza coordinator of evidence of an emerging problem. (Name _____)</li> <li>○ Thresholds for heightened local surveillance for pandemic influenza have been established.</li> <li>○ A system has been created for internal review of pandemic influenza activity in patients presenting to the emergency department.</li> <li>○ A system for monitoring for nosocomial transmission of pandemic has been implemented and tested by monitoring for non-pandemic influenza.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• A <b>communication plan</b> has been developed. <ul style="list-style-type: none"> <li>○ Responsibility for external communication has been assigned. <ul style="list-style-type: none"> <li>▪ Person responsible for updating public health reporting _____</li> <li>▪ Clinical spokesperson for the facility _____</li> <li>▪ Media spokesperson for the facility _____</li> </ul> </li> <li>○ Key points of contact outside the facility have been identified. <ul style="list-style-type: none"> <li>▪ State health department contact _____</li> <li>▪ Local health department contact _____</li> <li>▪ Newspaper contact(s) _____</li> <li>▪ Radio contact(s) _____</li> <li>▪ Public official(s) _____</li> </ul> </li> <li>○ A list of other healthcare facilities with whom it will be necessary to maintain communication has been established.</li> <li>○ A meeting with local healthcare facilities has been held to discuss a communication strategy.</li> <li>○ A plan for updating key facility personnel on a daily basis has been established.</li> </ul> <p>The person(s) responsible for providing these updates are: _____</p> <ul style="list-style-type: none"> <li>○ A system to track pandemic influenza admissions and discharges has been developed and tested by monitoring non-pandemic influenza admissions and discharges in the community.</li> <li>○ A strategy for regularly updating clinical, ED, and outpatient staff on the status of pandemic influenza, once detected, has been established. (Responsible person _____)</li> <li>○ A plan for informing patients and visitors about the level of pandemic influenza activity</li> </ul> </li> </ul>	

has been established.	
<ul style="list-style-type: none"> <li>• An education and training plan on pandemic influenza has been developed. <ul style="list-style-type: none"> <li>○ Language and reading level-appropriate materials for educating all personnel about pandemic influenza and the facility's pandemic influenza plan, have been identified.</li> <li>○ Current and potential sites for long-distance and local education of clinicians on pandemic influenza have been identified.</li> <li>○ Means for accessing state and federal web-based influenza training programs have been identified.</li> <li>○ A system for tracking which personnel have completed pandemic influenza training is in place.</li> <li>○ A plan is in place for rapidly training non-facility staff brought in to provide patient care when the hospital reaches surge capacity.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• The following groups of healthcare personnel have received training on the facility's influenza plan: <ul style="list-style-type: none"> <li>○ Attending physicians</li> <li>○ House staff</li> <li>○ Nursing staff</li> <li>○ Laboratory staff</li> <li>○ Emergency Department personnel</li> <li>○ Outpatient personnel</li> <li>○ Environmental Services personnel</li> <li>○ Engineering and maintenance personnel</li> <li>○ Security personnel</li> <li>○ Nutrition personnel</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• A <b>triage and admission plan</b> has been developed. <ul style="list-style-type: none"> <li>○ A specific location has been identified for triage of patients with possible pandemic influenza.</li> <li>○ The plan includes use of signage to direct and instruct patients with possible pandemic influenza on the triage process.</li> <li>○ Patients with possible pandemic influenza will be physically separated from other patients seeking medical attention.</li> <li>○ A system for phone triage of patients for purposes of prioritizing patients who require a medical evaluation has been developed.</li> <li>○ Criteria for determining which patients need a medical evaluation are in place.</li> <li>○ A method for tracking the admission and discharge of patients with pandemic influenza has been developed.</li> <li>○ The tracking method has been tested with non-pandemic influenza patients.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• A <b>facility access plan</b> has been developed. <ul style="list-style-type: none"> <li>○ Criteria and protocols for closing the facility to new admissions are in place.</li> <li>○ Criteria and protocols for limiting visitors have been established.</li> <li>○ Hospital Security has had input into procedures for enforcing facility access controls.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• An <b>occupational health plan</b> has been developed. <ul style="list-style-type: none"> <li>○ A system for rapidly delivering vaccine or antiviral prophylaxis to healthcare personnel has been developed.</li> <li>○ The system has been tested during a non-pandemic influenza season.</li> </ul> </li> </ul>	

<ul style="list-style-type: none"> <li>○ A method for prioritizing healthcare personnel for receipt of vaccine or antiviral prophylaxis based on level of patient contact and personal risk for influenza complications has been established.</li> <li>○ A system for detecting symptomatic personnel before they report for duty has been developed.</li> <li>○ This system has been tested during a non-pandemic influenza period.</li> <li>○ A policy for managing healthcare personnel with symptoms of or documented pandemic influenza has been established. The policy considers:             <ul style="list-style-type: none"> <li>○ When personnel may return to work after having pandemic influenza</li> <li>○ When personnel who are symptomatic but well enough to work, will be permitted to continue working</li> </ul> </li> <li>○ A method for furloughing or altering the work locations of personnel who are at high risk for influenza complications (e.g., pregnant women, immunocompromised healthcare workers) has been developed.</li> <li>○ Mental health and faith-based resources who will provide counseling to personnel during a pandemic have been identified.</li> <li>○ A strategy for housing healthcare personnel who may be needed on-site for prolonged periods of time is in place.</li> <li>○ A strategy for accommodating and supporting personnel who have child or elder care responsibilities has been developed.</li> </ul>	
<ul style="list-style-type: none"> <li>● A <b>vaccine and antiviral use plan</b> has been developed.             <ul style="list-style-type: none"> <li>○ A contact for obtaining influenza vaccine has been identified. (Name) _____</li> <li>○ A contact for obtaining antiviral prophylaxis has been identified. (Name) _____</li> <li>○ A priority list (based on HHS guidance for use of vaccines and antivirals in a pandemic when in short supply) and estimated number of patients and healthcare personnel who would be targeted for influenza vaccination or antiviral prophylaxis has been developed.                 <ul style="list-style-type: none"> <li>▪ Number of first priority personnel _____</li> <li>▪ Number of second priority personnel _____</li> <li>▪ Number of remaining personnel _____</li> <li>▪ Number of first priority patients _____</li> <li>▪ Number of second priority patients _____</li> </ul> </li> <li>○ A system for rapidly distributing vaccine and antivirals to patients has been developed.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>● Issues related to surge capacity have been addressed.             <ul style="list-style-type: none"> <li>○ A plan is in place to address unmet staffing needs in the hospital.</li> <li>○ The minimum number and categories of personnel needed to care for a group of patients with pandemic influenza has been determined.</li> <li>○ Responsibility for assessing day-to-day clinical staffing needs during an influenza pandemic has been assigned.</li> </ul> <p>Persons responsible are: (names and/or titles) _____</p> <ul style="list-style-type: none"> <li>○ Legal counsel has reviewed emergency laws for using healthcare personnel with out-of-state licenses.</li> <li>○ Legal counsel has made sure that any insurance and other liability concerns have been resolved.</li> <li>○ Criteria for declaring a "staffing crisis" that would enable the use of emergency staffing alternatives have been defined.</li> </ul> </li> </ul>	

<ul style="list-style-type: none"> <li>○ The plan includes linking to local and regional planning and response groups to collaborate on addressing widespread healthcare staffing shortages during a crisis.</li> <li>○ A priority list for reassignment and recruitment of personnel has been developed.</li> <li>○ A method for rapidly credentialing newly recruited personnel has been developed.</li> <li>○ Mutual AID Agreements (MAAs) and Memoranda of Understanding/Agreement (MOU/As) have been signed with other facilities that have agreed to share their staff, as needed.</li> </ul>	
<ul style="list-style-type: none"> <li>• Strategies to increase bed capacity have been identified <ul style="list-style-type: none"> <li>○ A threshold has been established for canceling elective admissions and surgeries</li> <li>○ MOAs have been signed with facilities that would accept non-influenza patients in order to free-up bed space</li> <li>○ Areas of the facility that could be utilized for expanded bed space have been identified</li> <li>○ The estimated patient capacity for this facility is _____</li> <li>○ Plans for expanded bed capacity have been discussed with local and regional planning groups</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• Anticipated durable and consumable resource needs have been determined <ul style="list-style-type: none"> <li>○ A primary plan and contingency plan to address supply shortages has been developed</li> <li>○ Plans for obtaining limited resources have been discussed with local and regional planning and response groups.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• A strategy for handling increased numbers of deceased persons has been developed. <ul style="list-style-type: none"> <li>○ Plans for expanding morgue capacity have been discussed with local and regional planning groups.</li> <li>○ Local morticians have been involved in planning discussions.</li> <li>○ Mortality estimates have been used to estimate the number of body bags and shrouds.</li> <li>○ Supply sources for postmortem materials have been identified.</li> </ul> </li> </ul>	



## Attachment E – EMS Checklist

### EMERGENCY MEDICAL SERVICE AND NON-EMERGENT (MEDICAL) TRANSPORT ORGANIZATIONS PANDEMIC INFLUENZA PLANNING CHECKLIST



Planning for pandemic influenza is critical for ensuring a sustainable health care response. The Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) have developed the following checklist to help emergency medical services (EMS) and non-emergent (medical) transport organizations assess and improve their preparedness for responding to pandemic influenza. EMS organizations will be involved in the transport of acutely ill patients with known or suspected pandemic influenza to emergency departments; some of these patients might require mechanical ventilation for life support and/or other lifesaving interventions. Non-emergent (medical) transport organizations will be called upon to transport recovering pandemic influenza patients to their home, residential care facility, or possibly to alternate care sites set up by state or local health departments. This checklist is modeled after one included in the HHS Pandemic Influenza Plan ([www.hhs.gov/pandemicflu/plan/sup3.html#app2](http://www.hhs.gov/pandemicflu/plan/sup3.html#app2)). The list is comprehensive but not complete; each organization will have unique and unanticipated concerns that also will need to be addressed as part of a pandemic planning exercise. Also, some items on the checklist might not be applicable to all organizations. Collaborations among hospital, public health and public safety personnel are encouraged for the overall safety and care of the public. Further information can be found at [www.pandemicflu.gov](http://www.pandemicflu.gov).

This checklist identifies key areas for pandemic influenza planning. EMS and non-emergent (medical) transport organizations can use this tool to self-assess and identify the strengths and weakness of current planning. Links to websites with information are provided throughout the document. However, actively seeking information that is available locally or at the state level will be necessary to complete the development of the plan. Also, for some elements of the plan (e.g., education and training programs), information may not be immediately available and monitoring of selected websites for new and updated information will be necessary.

#### 1. Structure for planning and decision making.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pandemic influenza has been incorporated into emergency management planning and exercises for the organization.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A planning committee <sup>1</sup> has been created to specifically address pandemic influenza preparedness.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A person has been assigned responsibility for coordinating pandemic influenza preparedness planning (hereafter referred to as the pandemic response coordinator) for the organization. (Insert name, title, and contact information.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Members of the planning committee include the following: (Insert below or attach a list with name title and contact information for each.)
			<input type="checkbox"/> Administration: _____
			<input type="checkbox"/> Medical staff: _____
			<input type="checkbox"/> EMS providers: _____
			<input type="checkbox"/> Phone triage personnel/dispatch center: _____
			<input type="checkbox"/> Emergency management officer: _____
			<input type="checkbox"/> State/local health official: _____
			<input type="checkbox"/> Law enforcement official (for quarantine/security): _____
			<input type="checkbox"/> Other member <sup>2</sup> : _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A point of contact (e.g., internal staff member assigned infection control responsibility for the organization or an outside consultant) for questions/consultation on infection control has been identified. (Insert name, title, and contact information.)

1. Size of committee can vary, depending on the size and needs of the organization.

2. Some organizations may need or want to include a school official or volunteer coordinator for local civic and preparedness groups (e.g., Medical Reserve Corps, Citizen Corps, Community Emergency Response Teams, Rotary Club, Lions, Red Cross).



## 2. Development of a written pandemic influenza plan.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Copies of relevant sections of the Department of Health and Human Services Pandemic Influenza Plan have been obtained. <a href="http://www.hhs.gov/pandemicflu/plan">www.hhs.gov/pandemicflu/plan</a> .
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Copies of available community and state pandemic plans have been obtained.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written plan has been completed or is in progress that includes the elements listed in #3 below.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The plan describes the organizational structure (i.e., lines of authority) that will be used to operationalize the plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The plan complements or is part of the community response plan.

## 3. Elements of an influenza pandemic plan.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A plan is in place for surveillance and detection of pandemic influenza in the population served and the appropriate organizational response.
			<input type="checkbox"/> Responsibility has been assigned for monitoring national and state public health advisories (e.g., <a href="http://www.cdc.gov/flu/weekly/fluactivity.htm">www.cdc.gov/flu/weekly/fluactivity.htm</a> ) and informing the pandemic response coordinator and members of the pandemic influenza planning committee when cases of pandemic influenza have been reported in the United States and when they are nearing the geographic area (e.g., state or city). (Insert name, title, and contact information of person responsible.)
			<input type="checkbox"/> A system has been created to track influenza-like illness in patients transported to hospitals and among EMS staff and to report this information to the pandemic response coordinator (i.e., weekly or daily number of patients with influenza-like illness). For more information see <a href="http://www.cdc.gov/flu/professionals/diagnosis/">www.cdc.gov/flu/professionals/diagnosis/</a> . (Having a system for tracking illness trends in patients and staff during seasonal influenza will ensure that organizations can detect stressors that may affect operating capacity, such as staffing and supply needs, and hospital and emergency department capacity during a pandemic.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A communication plan has been developed.
			<input type="checkbox"/> Key public health points of contact for pandemic influenza have been identified. (Insert below or attach a list with the name, title, and contact information for each.)
			<input type="checkbox"/> Local health department contact: _____
			<input type="checkbox"/> State health department contact: _____
			<input type="checkbox"/> Local emergency management contact: _____
			<input type="checkbox"/> State emergency management contact: _____
			<input type="checkbox"/> Federal health emergency contact(s): _____
			<input type="checkbox"/> The organization's point person for external communication has been assigned. (Insert name, title, and contact information.)
			(Having one person who speaks with the health department, and if necessary, media, local politicians, etc., will help ensure consistent communication is provided by the organization.)
			<input type="checkbox"/> A list of healthcare entities and their points of contact (e.g., other local EMS and non-emergent [medical] transport organizations, local hospitals and their emergency departments, community health centers, residential care facilities) has been created. (Insert location of or attach copy of contact list.)
			<input type="checkbox"/> The pandemic response coordinator has contacted local or regional pandemic influenza planning groups to obtain information on communication and coordination plans, including how EMS will be represented in the planning process. (For more information on state and local planning, see <a href="http://www.hhs.gov/pandemicflu/plan/part2.html#overview">www.hhs.gov/pandemicflu/plan/part2.html#overview</a> .)
			<input type="checkbox"/> The pandemic response coordinator has contacted other EMS and non-emergent (medical) transport organizations regarding pandemic influenza planning and coordination of services.

### 3. Elements of an influenza pandemic plan. (continued)

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A plan is in place to ensure that education and training on pandemic influenza is provided to ensure that all personnel understand the implications of, and control measures for, pandemic influenza and the current organization and community response plans.</p> <p><input type="checkbox"/> A person has been designated to coordinate education and training (e.g., identify and facilitate access to education and training programs, ensure that staff attend, and maintain a record of attendance at education and training programs). (Insert name, title, and contact information.)</p> <hr/> <p><input type="checkbox"/> Current and potential opportunities for long-distance (e.g., web-based) and local (e.g., health department or hospital sponsored programs, programs offered by professional organizations or federal agencies) education of EMS and medical transport personnel have been identified. (For more information see <a href="http://www.cdc.gov/flu/professionals/training/">www.cdc.gov/flu/professionals/training/</a>.)</p> <p><input type="checkbox"/> Language and reading-level-appropriate materials for professional and non-professional personnel on pandemic influenza (e.g., available through state and federal public health agencies and professional organizations) have been identified and a plan is in place for obtaining these materials.</p> <p><input type="checkbox"/> Education and training include information on infection control measures to prevent the spread of pandemic influenza.</p> <p><input type="checkbox"/> Differences between responding to pandemic influenza and a mass casualty event have been incorporated into education and training programs.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A plan has been developed for triage and management of patients during a pandemic that includes the following:</p> <p><input type="checkbox"/> A system for phone triage of patients calling 911 or other emergency numbers that might be used (provide/post list of appropriate numbers) that includes pre-established criteria and coordination protocols to determine who needs emergency transport. The system includes points of referral for patients who do not need emergency transport.</p> <p><input type="checkbox"/> A plan for coordination with receiving facilities (e.g., hospital emergency departments), other EMS and non-emergent (medical) transport organizations, and local planning groups to manage the transportation of large numbers of patients at the height of the pandemic.</p> <p><input type="checkbox"/> A policy and procedure for transporting multiple patients with pandemic influenza during a single ambulance run.</p> <p><input type="checkbox"/> The plan considers the possible necessity of sharing transportation resources or using vehicles other than those designed for emergency or medical transport (e.g., buses).</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>An infection control plan is in place and includes the following: (For information on infection control recommendations for pandemic influenza, see <a href="http://www.hhs.gov/pandemicflu/plan/sup4.html">www.hhs.gov/pandemicflu/plan/sup4.html</a>).</p> <p><input type="checkbox"/> A plan for implementing Respiratory Hygiene/Cough Etiquette for patients with a possible respiratory illness.</p> <p><input type="checkbox"/> The plan includes distributing masks<sup>3</sup> to symptomatic patients who are able to wear them (adult and pediatric sizes should be available), providing facial tissues and receptacles for their disposal, and hand hygiene materials in EMS and medical transport vehicles.</p> <p><input type="checkbox"/> Implementation of Respiratory Hygiene/Cough Etiquette has been exercised during seasons when seasonal influenza and other respiratory viruses (e.g., respiratory syncytial virus, parainfluenza virus) are circulating in communities.</p> <p><input type="checkbox"/> A policy that requires healthcare personnel to use Standard Precautions (<a href="http://www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html">www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html</a>) and Droplet Precautions (i.e., mask for close contact) (<a href="http://www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html">www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html</a>) with symptomatic patients.</p>

3. Masks include both surgical and procedure types. Procedure masks that are affixed to the head with ear loops might be used more easily by patients and are available in pediatric and adult sizes. Either surgical or procedure masks may be used as a barrier to prevent contact with respiratory droplets.

### 3. Elements of an influenza pandemic plan. (continued)

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>An occupational health plan has been developed that includes the following:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A liberal/non-punitive sick leave policy for managing EMS and non-emergent (medical) transport personnel who have symptoms of, or documented illness with, pandemic influenza.</li> <li><input type="checkbox"/> The policy considers the following: <ul style="list-style-type: none"> <li>• Handling of staff who become ill at work.</li> <li>• When personnel may return to work after recovering from pandemic influenza.</li> <li>• When personnel who are symptomatic but well enough to work will be permitted to continue working.</li> <li>• Personnel who need to care for their ill family members.</li> </ul> </li> <li><input type="checkbox"/> A system for evaluating symptomatic personnel before they report for duty that has been tested during a non-pandemic influenza period.</li> <li><input type="checkbox"/> A list of mental health and faith-based resources available to provide counseling to personnel during a pandemic.</li> <li><input type="checkbox"/> Management of personnel who are at increased risk for influenza complications (e.g., pregnant women, immunocompromised healthcare workers) by placing them on administrative leave or altering their work locations.</li> <li><input type="checkbox"/> The ability to monitor seasonal influenza vaccination of personnel.</li> <li><input type="checkbox"/> Offering annual influenza vaccine to personnel.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>A vaccine and antiviral use plan has been developed.</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Websites containing current CDC and state health department recommendations for the use and availability of vaccines and antiviral medications have been identified. (For more information, see <a href="http://www.hhs.gov/pandemicflu/plan/sup6.html">www.hhs.gov/pandemicflu/plan/sup6.html</a> and <a href="http://www.hhs.gov/pandemicflu/plan/sup7.html">www.hhs.gov/pandemicflu/plan/sup7.html</a>.)</li> <li><input type="checkbox"/> An estimate has been made of the number of personnel who will be targeted as first and second priority for receipt of pandemic influenza vaccine and antiviral prophylaxis, based on HHS guidance for use. (For more information, see <a href="http://www.hhs.gov/pandemicflu/plan/appendixd.html">www.hhs.gov/pandemicflu/plan/appendixd.html</a>.)</li> <li><input type="checkbox"/> Discussions have been held with the local and/or state health department regarding the role of the organization in a large-scale program to distribute vaccine and antivirals to the general population.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>Concerns related to surge capacity during a pandemic have been addressed.</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A plan is in place for managing a staffing shortage within the organization because of illness in personnel or their family members.</li> <li><input type="checkbox"/> The minimum number and categories of personnel necessary to sustain EMS and non-emergent (medical) transport services on a day-to-day basis have been determined.</li> <li><input type="checkbox"/> Contingency staffing plans have been developed in collaboration with other local EMS and non-emergent (medical) transport providers.</li> <li><input type="checkbox"/> Hospitals and regional planning groups have been consulted regarding contingency staffing resources.</li> <li><input type="checkbox"/> Anticipated consumable resource needs (e.g., masks, gloves, hand hygiene products) have been estimated.</li> <li><input type="checkbox"/> A primary plan and contingency plan to address supply shortages have been developed. These include detailed procedures for the acquisition of supplies through normal channels and requesting resources for replenishing supplies when normal channels have been exhausted.</li> <li><input type="checkbox"/> Plans include stockpiling at least a week's supply of resources when evidence exists that pandemic influenza has reached the United States.</li> <li><input type="checkbox"/> An understanding of the process exists for requesting and obtaining assets for the organization made available through the community response plan.</li> </ul>

## Attachment F – Non-Hospital Checklist

### MEDICAL OFFICES AND CLINICS PANDEMIC INFLUENZA PLANNING CHECKLIST



Planning for pandemic influenza is critical for ensuring a sustainable healthcare response. The Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) have developed the following checklist to help medical offices and ambulatory clinics assess and improve their preparedness for responding to pandemic influenza. This checklist is modeled after a pandemic preparedness checklist for hospitals and should be used in conjunction with guidance on healthcare preparedness planning in Supplement 3 of the HHS Pandemic Influenza Plan. Many of the issues included in the checklist are also relevant to other outpatient settings that provide episodic and chronic healthcare services (e.g., dental, podiatric, and chiropractic offices, ambulatory surgery centers, hemodialysis centers). Given the variety of healthcare settings, individual medical offices and clinics may need to adapt this checklist to meet their unique needs. Further information can be found at [www.pandemicflu.gov](http://www.pandemicflu.gov).

This checklist identifies key areas for pandemic influenza planning. Medical offices and clinics can use this tool to identify the strengths and weaknesses of current planning efforts. Links to websites with information are provided throughout the document. However, actively seeking information that is available locally or at the state level will be necessary to complete the development of the plan. Also, for some elements of the plan (e.g., education and training programs), information may not be immediately available and it will be necessary to monitor selected websites for new and updated information.

#### 1. Structure for planning and decision making.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pandemic influenza has been incorporated into emergency management planning for the organization.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A planning committee <sup>1</sup> has been created to specifically address pandemic influenza preparedness for the medical office or clinic.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A person has been assigned responsibility for coordinating preparedness planning for the practice or organization (hereafter referred to as the pandemic influenza response coordinator). (Insert name, title and contact information) _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Members of the planning committee include the following: (Insert below or attach list with name, title and contact information for each) Administration: _____ Medical staff: _____ Nursing: _____ Reception personnel: _____ Environmental services (if applicable): _____ Clinic laboratory personnel (if applicable): _____ Other member(s): _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A point of contact (e.g., person assigned infection control responsibility for the organization or an outside consultant <sup>2</sup> ) for questions/consultation on infection control measures to prevent transmission of pandemic influenza has been identified. (Insert name, title, and contact information) _____ _____

1. The committee could be very small (e.g., two or three staff members) or very large, depending on the size and needs of the organization.  
2. Formal memorandum of understanding or contract may be needed if an outside consultant is used.

March 6, 2006  
Version 2.2



## 2. Development of a written pandemic influenza plan.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Copies of relevant sections of the Department of Health and Human Services Pandemic Influenza Plan have been obtained from <a href="http://www.hhs.gov/pandemicflu/plan">www.hhs.gov/pandemicflu/plan</a> ; copies of available state pandemic plans also should be obtained.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written plan has been completed or is in progress that includes the elements listed in #3 below.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The plan describes the organizational structure that will be used to operationalize (i.e., lines of authority) the plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The plan incorporates and compliments the community response plan.

## 3. Elements of an influenza pandemic plan.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>A plan is in place for surveillance and detection of pandemic influenza in the population served.</b></p> <p><input type="checkbox"/> Responsibility has been assigned for monitoring public health advisories (federal and state) and informing members of the pandemic influenza planning committee and/or the pandemic influenza response coordinator when pandemic influenza is in the United States and when it is nearing the geographic area (e.g., state and/or city). (For more information, see <a href="http://www.cdc.gov/flu/weekly/fluactivity.htm">www.cdc.gov/flu/weekly/fluactivity.htm</a>) (Insert name, title and contact information)</p> <hr/> <p><input type="checkbox"/> A system has been created to monitor and review influenza activity in patients cared for by clinical staff (i.e., weekly or daily number of patients calling or presenting to the office or clinic with influenza-like illness) and among medical office or clinic staff. (For more information see <a href="http://www.cdc.gov/flu/professionals/diagnosis/">www.cdc.gov/flu/professionals/diagnosis/</a>) (Monitoring for seasonal influenza activity is performed to ensure that the monitoring system for pandemic influenza will be effective and will ensure that organizations can detect stressors that may affect organizational capacity, such as staffing and supply needs, and hospital and emergency department capacity [and supply needs] during a pandemic)</p> <p><input type="checkbox"/> A system is in place to report unusual cases of influenza-like illness and influenza to the local or state health department. (For more information see <a href="http://www.hhs.gov/pandemicflu/plan/sup1.html#outpat">www.hhs.gov/pandemicflu/plan/sup1.html#outpat</a> and <a href="http://www.hhs.gov/pandemicflu/plan/sup5.html#nov">www.hhs.gov/pandemicflu/plan/sup5.html#nov</a>)</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>A communication plan has been developed.</b></p> <p><input type="checkbox"/> Key public health points of contact for pandemic influenza have been identified and arrangements have been made for telephone, facsimile, or e-mail messaging.</p> <p>Local health department contact: (Insert name, title and contact information)</p> <hr/> <p>State health department contact: (Insert name, title and contact information)</p> <hr/> <p><input type="checkbox"/> The office or clinic's point person for external communication has been assigned. (Insert name, title and contact information)</p> <hr/> <p>(Having one person who speaks with the health department, and if necessary, media, local politicians, etc., will help ensure consistent communication is provided by the organization)</p> <p><input type="checkbox"/> A list has been created of healthcare entities and their points of contact (e.g., local hospitals/health facilities, home health care agencies, social service agencies, emergency medical services, commercial and clinical laboratories, relevant community organizations [including those involved with disaster preparedness]) with whom the medical office or clinic anticipates that it will be necessary to maintain communication and coordination of care during a pandemic. (Attach or insert location of contact list)</p> <hr/> <hr/>



### 3. Elements of an influenza pandemic plan. (continued)

Completed	In Progress	Not Started	
			<input type="checkbox"/> The pandemic response coordinator has contacted local or regional pandemic influenza planning groups to obtain information on communication and coordination plans, including notification when updated plans are created. (For more information on state and local planning, see <a href="http://www.hhs.gov/pandemicflu/plan/part2.html#overview">www.hhs.gov/pandemicflu/plan/part2.html#overview</a> )
			<input type="checkbox"/> A list or database has been created with contact information on patients who have regularly-scheduled visits and may need to be contacted during a pandemic for purposes of rescheduling office visits or assigning them to another point of care. (Insert location of list/database)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>A plan is in place to provide an education and training program to ensure that all personnel understand the implications of, and control measures for, pandemic influenza.</b>
			<input type="checkbox"/> A person has been designated to coordinate education and training (e.g., identify and facilitate access to education and training programs, maintain a record of attendance at education and training programs). (Insert name, title and contact information)
			<input type="checkbox"/> Current and potential opportunities for long-distance (e.g., web-based) and local (e.g., health department or hospital sponsored programs, programs offered by professional organizations or federal agencies) education of medical and nursing personnel have been identified. ( <a href="http://www.cdc.gov/flu/professionals/training/">http://www.cdc.gov/flu/professionals/training/</a> )
			<input type="checkbox"/> Language and reading-level appropriate materials on pandemic influenza (e.g., available through state and federal public health agencies and professional organizations) appropriate for professional, allied and support personnel have been identified and a plan is in place for obtaining these materials. (For more information see <a href="http://www.cdc.gov/flu/professionals/patiented.htm">www.cdc.gov/flu/professionals/patiented.htm</a> )
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Education and training includes information on infection control measures to prevent the spread of pandemic influenza. <a href="http://www.hhs.gov/pandemicflu/plan/sup4.html">www.hhs.gov/pandemicflu/plan/sup4.html</a>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Informational materials for patients on pandemic influenza that are language and reading-level appropriate for the population being served have been identified, and a plan is in place to obtain these materials. (For more information see <a href="http://www.cdc.gov/flu/professionals/patiented.htm">www.cdc.gov/flu/professionals/patiented.htm</a>)</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> The roles of medical and nursing personnel in providing health care guidance for patients with pandemic influenza have been established.
			<b>A plan for triage and management of patients during a pandemic has been developed.</b>
			<input type="checkbox"/> A system is in place for phone (and e-mail, where appropriate) triage of patients to determine who requires a medical evaluation, to limit office visits to those that are medically necessary.
			<input type="checkbox"/> Plans have been developed to manage patient care at the height of the pandemic including the following possibilities: <ul style="list-style-type: none"> <li>• Temporarily canceling non-essential medical visits (e.g., annual physicals).</li> <li>• Designating separate blocks of time for non-influenza and influenza-related patient care.</li> </ul>
			<input type="checkbox"/> Local plans and criteria for the disposition of patients following a medical evaluation (e.g., hospitalization, home health care services, self- or family-based care at home) have been discussed with local hospital and health care agencies and local health department. (Flexibility will be necessary based on hospital bed capacity)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>An infection control plan is in place and includes the following: (For information on infection control recommendations for pandemic influenza see <a href="http://www.hhs.gov/pandemicflu/plan/sup4.html">www.hhs.gov/pandemicflu/plan/sup4.html</a>)</b>
			<input type="checkbox"/> A specific waiting room location has been designated for patients with symptoms of pandemic influenza that is segregated from other patients awaiting care. (This may not be feasible in very small waiting rooms, in which case the emphasis may be on use of masks as noted below)

### 3. Elements of an influenza pandemic plan. (continued)

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><input type="checkbox"/> A plan for implementing Respiratory Hygiene/Cough Etiquette is in place. (For more information see <a href="http://www.cdc.gov/flu/professionals/infectioncontrol/resphgiene.htm">www.cdc.gov/flu/professionals/infectioncontrol/resphgiene.htm</a>)</p> <ul style="list-style-type: none"> <li>• Signage (language appropriate) directing patients and those accompanying them to notify reception personnel if they have symptoms of pandemic influenza has been developed or a source of signage (e.g., CDC website above) has been identified.</li> <li>• Signage (language appropriate) on Respiratory Hygiene/Cough Etiquette instructing symptomatic persons to use tissues to cover their cough to contain respiratory secretions and perform hand hygiene has been developed or a source of signage (e.g., CDC website above) has been identified.</li> <li>• The plan includes distributing masks to symptomatic patients who are able to wear them (adult and pediatric sizes should be available), providing facial tissues, receptacles for their disposal and hand hygiene materials in waiting areas and examination rooms.</li> <li>• Implementation of Respiratory Hygiene/Cough Etiquette has been exercised during seasons when influenza and other respiratory viruses (e.g., respiratory syncytial virus, parainfluenza virus) are circulating in communities.</li> <li>• If patients with pandemic influenza will be evaluated in the same location as patients without an influenza-like illness, separate examination rooms have been designated for evaluation of patients with symptoms of pandemic influenza.</li> <li>• A policy is in place that requires healthcare personnel to use Standard (<a href="http://www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html">www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html</a>) and Droplet Precautions (i.e., mask for close contact) (<a href="http://www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html">www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html</a>) with symptomatic patients.</li> <li>• The policy includes protection of reception and triage personnel at initial points of patient encounter.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>A vaccine and antiviral use plan has been developed.</b></p> <p><input type="checkbox"/> Websites where current federal and/or state health department recommendations for the use and availability of pandemic influenza vaccines and antiviral medications have been identified. (for more information see <a href="http://www.hhs.gov/pandemicflu/plan/sup6.html">www.hhs.gov/pandemicflu/plan/sup6.html</a>)</p> <p><input type="checkbox"/> An estimate of the number of personnel and patients who would be targeted as first and second priority for receipt of pandemic influenza vaccine or antiviral prophylaxis, based on HHS guidance for use, has been developed. (<a href="http://www.dhhs.gov/nvpo/pandemicplan/annex6.pdf">www.dhhs.gov/nvpo/pandemicplan/annex6.pdf</a>) (This estimate can be used for considering which patients may need to be notified first about vaccine or antiviral availability, anticipating staffing requirements for distribution of vaccines and antivirals, and for procurement purposes)</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><b>An occupational health plan has been developed and includes the following:</b></p> <p><input type="checkbox"/> A liberal/non-punitive sick leave policy for managing personnel who have symptoms of or documented illness with pandemic influenza.</p> <p>The policy considers:</p> <ul style="list-style-type: none"> <li>• The handling of staff who become ill at work.</li> <li>• When personnel may return to work after recovering from pandemic influenza.</li> <li>• When personnel who are symptomatic, but well enough to work, will be permitted to continue working.</li> <li>• Personnel who need to care for their ill family members.</li> </ul> <p><input type="checkbox"/> A system for evaluating symptomatic personnel before they report for duty and tested during a non-pandemic influenza period.</p> <p><input type="checkbox"/> Mental health and faith-based resources that are available to provide counseling to personnel during a pandemic.</p>



### 3. Elements of an influenza pandemic plan. (continued)

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> The management of personnel who are at increased risk for influenza complications (e.g., pregnant women, immunocompromised healthcare workers) by placing them on administrative leave or altering their work location. <input type="checkbox"/> The ability to monitor seasonal influenza vaccination of healthcare personnel. <input type="checkbox"/> The offer of annual influenza vaccine to medical office or clinic personnel. <b>Issues related to surge capacity (i.e., dealing with an influx of patients and staff and supply shortages) during a pandemic have been addressed. (For more information see <a href="http://www.hhs.gov/pandemicflu/plan/sup3.html#surge">www.hhs.gov/pandemicflu/plan/sup3.html#surge</a>)</b> <input type="checkbox"/> Plans for managing a staffing shortage within the organization due to illness in personnel or their family members have been addressed. <input type="checkbox"/> Staff have been encouraged to develop their own family care plans for the care of dependent minors and seniors in the event community containment measures (e.g., "snow days," school closures) are implemented. ( <a href="http://www.pandemicflu.gov/planguide/checklist.html">www.pandemicflu.gov/planguide/checklist.html</a> ; <a href="http://www.pandemicflu.gov/planguide/familyhealthinfo.html">www.pandemicflu.gov/planguide/familyhealthinfo.html</a> ) <input type="checkbox"/> The minimum number and categories of personnel necessary to keep the office/clinic open on a given day have been determined. <input type="checkbox"/> Plans for either closing the office/clinic or recruiting temporary personnel during a staffing crisis have been addressed. <input type="checkbox"/> Anticipated consumable resource needs (e.g., masks, gloves, hand hygiene products, medical supplies) have been estimated. <input type="checkbox"/> A primary plan and contingency plan to address supply shortages have been developed and each details procedures for acquisition of supplies through normal channels, as well as requesting resources when normal channel resources have been exhausted. <input type="checkbox"/> Plans include stockpiling at least a week's supply of consumable resources, including all necessary medical supplies, when there is evidence that pandemic influenza has reached the United States.

## Attachment G– Home Health Checklist

### HOME HEALTH CARE SERVICES PANDEMIC INFLUENZA PLANNING CHECKLIST



Planning for pandemic influenza is critical. The Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention have developed the following checklist to help public and private organizations that provide home health care services assess and improve their preparedness for responding to pandemic influenza. Home health agencies will likely be called upon to provide care for patients who do not require hospitalization for pandemic influenza, or for whom hospitalization is not an option because hospitals have reached their capacity to admit patients. These agencies may become overburdened very quickly and shortages of personnel and supplies for providing home health care may occur. This checklist is modeled after the one included in the HHS Pandemic Influenza Plan ([www.hhs.gov/pandemicflu/plan/sup3.html#app2](http://www.hhs.gov/pandemicflu/plan/sup3.html#app2)). The list is comprehensive but not complete; each home care agency will have unique and unanticipated issues that will need to be addressed as part of a pandemic planning exercise. Also, some items on the checklist may not be applicable to a given agency. Collaboration with hospitals, local pandemic planning committees and public health agencies will be essential to ensure that the affected population receives needed health care services. Further information can be found at [www.pandemicflu.gov](http://www.pandemicflu.gov).

This checklist identifies key areas for pandemic influenza planning. Home health care organizations can use this tool to identify the strengths and weaknesses of current planning efforts. Links to websites with information are provided throughout the document. However, actively seeking information that is available locally or at the state level will be necessary to complete the development of the plan. Also, for some elements of the plan (e.g., education and training programs), information may not be immediately available and it will be necessary to monitor selected websites for new and updated information.

#### 1. Structure for planning and decision making.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pandemic influenza has been incorporated into emergency management planning for the organization.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A planning committee has been created to specifically address pandemic influenza preparedness.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A person has been assigned responsibility for coordinating preparedness planning (hereafter referred to as the pandemic response coordinator) for the practice or organization. (Insert name, title and contact information) _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Members of the planning committee include the following: (Insert name, title and contact information for each) Administration: _____ Nursing: _____ Clerical: _____ Other: _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A point of contact has been identified for questions/consultation on infection control (e.g., hospital- or state health department-based infection control professional, healthcare epidemiologist). (Insert name, title, and contact information) _____

#### 2. Development of a written pandemic influenza plan.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Copies of relevant sections of the Department of Health and Human Services Pandemic Influenza Plan have been obtained. ( <a href="http://www.hhs.gov/pandemicflu/plan/">www.hhs.gov/pandemicflu/plan/</a> )
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Copies of available state and/or local pandemic influenza plans have been obtained.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written plan has been completed or is in progress that includes the elements listed in #3 below.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The plan describes the organizational structure (i.e., lines of authority, function and assignment of responsibility) that will be used to operationalize the plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The plan complements local response plans in communities served by the home health care agency.

- The committee could be very small (e.g., two or three staff members) or very large, depending on the size and needs of the organization. Members of the "group of professional personnel" required by CMS as one of the Home Health Agency Conditions of Participation should be included on the planning committee.
- As communities develop their pandemic response plans, the provision of home health care will be a pivotal concern. Home health care agencies should have input into these plans to ensure there are no conflicts between what the agency can provide and what the community expects.

### 3. Elements of an influenza pandemic plan.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A plan is in place for monitoring for pandemic influenza in the population served.</p> <p><input type="checkbox"/> Responsibility has been assigned for monitoring national and state public health advisories (e.g., <a href="http://www.cdc.gov/flu/weekly/fluactivity.htm">www.cdc.gov/flu/weekly/fluactivity.htm</a>) and updating members of the pandemic influenza planning committee when cases of pandemic influenza have been reported in United States and in the geographic area. (Insert name, title, and contact information) _____</p> <p><input type="checkbox"/> A system has been created to monitor influenza-like illness in patients cared for in the home (i.e., weekly or daily number of patients with influenza-like illness). <a href="http://www.cdc.gov/flu/professionals/diagnosis/">www.cdc.gov/flu/professionals/diagnosis/</a> (Having a system for tracking illness trends during seasonal influenza will ensure that organizations can detect stressors that may affect operating capacity, including staffing and supply needs, during a pandemic.)</p> <p><input type="checkbox"/> A system is in place to report unusual cases of influenza-like illness and influenza-related deaths to local health authorities.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A communication plan has been developed and includes the following information:</p> <p><input type="checkbox"/> Key public health points of contact for pandemic influenza have been identified. (Insert name, title, and contact information for each)</p> <p><input type="checkbox"/> Local health department _____</p> <p><input type="checkbox"/> State health department _____</p> <p><input type="checkbox"/> Local emergency management _____</p> <p><input type="checkbox"/> The organization's point person for external communication (e.g., with hospitals, nursing homes, health departments, social services agencies) has been assigned. (Insert name, title and contact information)</p> <p><input type="checkbox"/> A list has been created of healthcare entities and their points of contact (e.g., other home care services providers, local hospitals, residential care facilities, social service agencies, emergency medical services providers, health centers and rural health facilities, relevant community organizations [including those involved with disaster preparedness]) with whom the home care agency anticipates that it will be necessary to maintain communication and coordination of care during a pandemic. (Insert location of contact list): _____</p> <p><input type="checkbox"/> The pandemic response coordinator has contacted local or regional pandemic influenza planning groups to obtain information on communication and coordination of plans.</p> <p><input type="checkbox"/> The pandemic response coordinator has contacted other home care services providers in the area regarding their pandemic influenza planning efforts. (Whenever possible, home care agencies should consider joint planning and coordination opportunities.)</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>An education and training program has been developed to ensure that all personnel understand the implications of, and control measures for, pandemic influenza and the current community response plan. (For more information on the scope of recommended education and training, see <a href="http://www.hhs.gov/pandemicflu/plan/sup3.html#edutrain">www.hhs.gov/pandemicflu/plan/sup3.html#edutrain</a>)</p> <p><input type="checkbox"/> A person has been designated to coordinate education and training (e.g., identify and facilitate access to education and training programs, ensure that home care personnel attend, and maintain a record of attendance). (Insert name, title, and contact information): _____</p> <p><input type="checkbox"/> Current and potential sites have been identified for long-distance (e.g., web-based programs offered by professional associations or federal agencies) and local (e.g., health department or hospital sponsored programs) education of home care personnel. (<a href="http://www.cdc.gov/flu/professionals/training/">www.cdc.gov/flu/professionals/training/</a>)</p> <p><input type="checkbox"/> Language and reading-level appropriate materials have been identified on pandemic influenza (e.g., available through state and federal public health agencies and professional organizations) and a plan is in place for obtaining these materials.</p> <p><input type="checkbox"/> The education and training program includes information on infection control measures to prevent the spread of pandemic influenza, including information on measures home health care personnel should apply during home care of patients. (For further information on infection control recommendations for home care, see <a href="http://www.hhs.gov/pandemicflu/plan/sup4.html#care">www.hhs.gov/pandemicflu/plan/sup4.html#care</a>)</p>

3. Most home health agencies will already have a list of healthcare organizations and points of contact that can be used for this purpose.

### 3. Elements of an influenza pandemic plan. (continued)

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Informational materials on pandemic influenza for patients and their families have been identified that are language and reading-level appropriate for the population being served and a plan is in place to obtain and disseminate these materials.</p> <p><input type="checkbox"/> Materials have been identified or developed to guide family members on infection control and care of patients with pandemic influenza in the home. <a href="http://www.pandemicflu.gov/plan/tab3.html">www.pandemicflu.gov/plan/tab3.html</a></p> <p><input type="checkbox"/> Patients and families are encouraged to maintain a 30-day supply of medications and medical supplies as well as a two-week supply of non-perishable food and water.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A plan has been developed for the management of patients during a pandemic, which covers the following issues:</p> <p><input type="checkbox"/> Plans have been developed to manage patient care during the height of a pandemic to accommodate the increased number of patients who will need home care services.</p> <p><input type="checkbox"/> The scope of services that the agency will provide and those that will be denied or referred to other providers has been clearly defined.</p> <p><input type="checkbox"/> The role and responsibility of the agency regarding distribution of infection control supplies (e.g., masks, hand hygiene materials), food, medications, and other necessities in the home to patients and their families has been discussed with a local or regional pandemic influenza planning group.</p> <p><input type="checkbox"/> Plans include decision tools for determining which patients can have altered service schedules based on their health conditions, needs, and available resources.</p> <p><input type="checkbox"/> Local plans and criteria for the disposition of patients have been discussed with area hospitals and other home care agencies. (Hospitals may discharge patients to home and home health care agencies early to free-up bed space for critically ill patients.)</p> <p><input type="checkbox"/> The plan considers how social service agencies (e.g., Red Cross, Salvation Army) will help meet the needs of families in the community (e.g., by providing child- or elder-care meals, shopping services) in homes where there are patients with pandemic influenza, particularly where the primary adult support person living in the home is ill.</p> <p><input type="checkbox"/> The plan considers how the agency will maintain a database of clients who require electrically-dependent technology-driven care (e.g., ventilators, breathing treatments, suction, pumps, turning devices), oxygen, special nutrition requirements, dialysis, etc.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>An infection control plan is in place and includes the following:</p> <p><input type="checkbox"/> An infection control policy for the care of pandemic influenza patients in the home (<a href="http://www.hhs.gov/pandemicflu/plan/sup4.html">www.hhs.gov/pandemicflu/plan/sup4.html</a> and <a href="http://www.cdc.gov/flu/professionals/infectioncontrol/">www.cdc.gov/flu/professionals/infectioncontrol/</a>)</p> <p><input type="checkbox"/> The policy requires healthcare personnel to use Standard (<a href="http://www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html">www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html</a> and Droplet Precautions (i.e., mask for close contact) (<a href="http://www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html">www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html</a>) with symptomatic patients.</p> <p><input type="checkbox"/> A list has been developed of supplies (e.g., surgical masks, gloves, alcohol-based hand hygiene products) that will be used during home care of patients with pandemic influenza.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>An occupational health plan has been developed that includes the following:</p> <p><input type="checkbox"/> A liberal/noc-punitive sick leave policy for managing home care personnel who have symptoms of, or documented illness with, pandemic influenza. The policy considers:</p> <ul style="list-style-type: none"> <li>• The handling of staff who become ill at work</li> <li>• When personnel may return to work after recovering from pandemic influenza</li> <li>• When personnel who are symptomatic, but well enough to work, will be permitted to continue working</li> </ul> <p><input type="checkbox"/> A system for evaluating symptomatic personnel before they report for duty has been developed and tested during a non-pandemic (e.g., seasonal) influenza period.</p> <p><input type="checkbox"/> Mental health and faith-based resources have been identified that are available to provide counseling to personnel during a pandemic.</p> <p><input type="checkbox"/> The management of personnel who are at increased risk for influenza complications (e.g., pregnant women, immunocompromised healthcare workers) has been addressed by placing them on administrative leave or altering their work location</p> <p><input type="checkbox"/> Staff have been encouraged to develop their own family care plans for the care of dependent minors and seniors in the event community containment measures (e.g., "snow days," school closures) are implemented and for possible illness in adult family members.</p> <p><input type="checkbox"/> The agency has the ability to monitor influenza vaccination of healthcare personnel.</p> <p><input type="checkbox"/> Influenza vaccine is offered or made available on an annual basis to healthcare personnel.</p>

### 3. Elements of an influenza pandemic plan. *(continued)*

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A vaccine and antiviral use plan has been developed.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Websites containing current federal and state health department recommendations for the use and availability of vaccines and antiviral medications have been identified. (<a href="http://www.cdc.gov/flu/professionals/vaccination/">www.cdc.gov/flu/professionals/vaccination/</a>)</li> <li><input type="checkbox"/> An estimate has been developed of the number of personnel who would be targeted as first and second priority for receipt of pandemic influenza vaccine and antiviral prophylaxis, based on HHS guidance for use. (<a href="http://www.hhs.gov/pandemicflu/plan/appendixd.html">www.hhs.gov/pandemicflu/plan/appendixd.html</a>)</li> <li><input type="checkbox"/> The potential role of the home health care organization in the distribution of vaccine and antivirals in the community has been discussed with the local health department and/or regional pandemic planning committee.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Issues related to surge capacity during a pandemic have been addressed.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A plan is in place for managing a staffing shortage within the organization due to illness in personnel or their family members.</li> <li><input type="checkbox"/> The minimum number and categories of nursing staff and other professional personnel necessary to sustain home care services for a given number of patients or on a day-to-day basis have been determined. Cross-training (where applicable) has been implemented.</li> <li><input type="checkbox"/> Priorities for providing care have been established.</li> <li><input type="checkbox"/> Contingency staffing plans have been developed for either limiting home care access or recruiting temporary personnel during a staffing crisis.</li> <li><input type="checkbox"/> Hospitals and other appropriate healthcare service providers have been consulted regarding contingency staffing resources.</li> <li><input type="checkbox"/> Anticipated consumable resource needs (e.g., masks, gloves, hand hygiene products) have been estimated.</li> <li><input type="checkbox"/> A primary plan and contingency plan to address supply shortages have been developed, including detailed procedures for acquisition of supplies through normal channels as well as requesting resources for replenishing supplies when normal channels have been exhausted.</li> <li><input type="checkbox"/> Plans include stockpiling at least a week's supply of resources when there is evidence that the potential for pandemic influenza has reached the United States.</li> <li><input type="checkbox"/> There is an understanding of the process for requesting and obtaining assets (e.g., personal protective equipment, medical supplies) made available through the community's response plan.</li> <li><input type="checkbox"/> Information has been obtained on local and regional plans and resources for dealing with mass fatalities including removal of the deceased from the home.</li> </ul>

March 1, 2006  
Version 5



## Attachment H– Long Term Care Checklist

### LONG-TERM CARE AND OTHER RESIDENTIAL FACILITIES PANDEMIC INFLUENZA PLANNING CHECKLIST



Planning for pandemic influenza is critical for ensuring a sustainable healthcare response. The Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) have developed this checklist to help long-term care and other residential facilities assess and improve their preparedness for responding to pandemic influenza. Based on differences among facilities (e.g., patient/resident characteristics, facility size, scope of services, hospital affiliation), each facility will need to adapt this checklist to meet its unique needs and circumstances. This checklist should be used as one tool in developing a comprehensive pandemic influenza plan. Additional information can be found at [www.pandemicflu.gov](http://www.pandemicflu.gov). Information from state, regional, and local health departments, emergency management agencies/authorities, and trade organizations should be incorporated into the facility's pandemic influenza plan. Comprehensive pandemic influenza planning can also help facilities plan for other emergency situations.

This checklist identifies key areas for pandemic influenza planning. Long-term care and other residential facilities can use this tool to self-assess the strengths and weaknesses of current planning efforts. Links to websites with helpful information are provided throughout this document. However, it will be necessary to actively obtain information from state and local resources to ensure that the facility's plan complements other community and regional planning efforts.

#### 1. Structure for planning and decision making.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pandemic influenza has been incorporated into emergency management planning and exercises for the facility.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A multidisciplinary planning committee or team <sup>1</sup> has been created to specifically address pandemic influenza preparedness planning. (List committee's or team's name.) _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A person has been assigned responsibility for coordinating preparedness planning, hereafter referred to as the pandemic influenza response coordinator. (Insert name, title and contact information.) _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Members of the planning committee include (as applicable to each setting) the following: (Develop a list of committee members with the name, title, and contact information for each personnel category checked below and attach to this checklist.) <input type="checkbox"/> Facility administration <input type="checkbox"/> Medical director <input type="checkbox"/> Nursing administration <input type="checkbox"/> Infection control <input type="checkbox"/> Occupational health <input type="checkbox"/> Staff training and orientation <input type="checkbox"/> Engineering/maintenance services <input type="checkbox"/> Environmental (housekeeping) services <input type="checkbox"/> Dietary (food) services <input type="checkbox"/> Pharmacy services <input type="checkbox"/> Occupational/rehabilitation/physical therapy services <input type="checkbox"/> Transportation services <input type="checkbox"/> Purchasing agent <input type="checkbox"/> Facility staff representative <input type="checkbox"/> Other member(s) as appropriate (e.g., clergy, community representatives, department heads, resident and family representatives, risk managers, quality improvement, direct care staff, collective bargaining agreement union representatives)

1. An existing emergency or disaster preparedness team may be assigned this responsibility.  
May 1, 2006 Version 1





### 1. Structure for planning and decision making *(continued)*.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local and state health departments and provider/trade association points of contact have been identified for information on pandemic influenza planning resources. (Insert name, title and contact information for each.)  Local health department contact: _____ State health department contact: _____ State long-term care professional/trade association: _____ _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local, regional, or state emergency preparedness groups, including bioterrorism/communicable disease coordinators points of contact have been identified. (Insert name, title and contact information for each.) City: _____ County: _____ Other regional: _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Area hospitals points of contact have been identified in the event that facility residents require hospitalization or facility beds are needed for hospital patients being discharged in order to free up needed hospital beds. (Attach a list with the name, title, and contact information for each hospital.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The pandemic influenza response coordinator has contacted local or regional pandemic influenza planning groups to obtain information on coordinating the facility's plan with other influenza plans.

### 2. Development of a written pandemic influenza plan.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Copies have been obtained of relevant sections of the HHS Pandemic Influenza Plan (available at <a href="http://www.hhs.gov/pandemicflu/plan/">www.hhs.gov/pandemicflu/plan/</a> ) and available state, regional, or local plans are reviewed for incorporation into the facility's plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The facility plan includes the elements listed in #3 below.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The plan identifies the person(s) authorized to implement the plan and the organizational structure that will be used.

### 3. Elements of an influenza pandemic plan.

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A plan is in place for surveillance and detection of the presence of pandemic influenza in residents and staff.  <input type="checkbox"/> A person has been assigned responsibility for monitoring public health advisories (federal and state), and updating the pandemic response coordinator and members of the pandemic influenza planning committee when pandemic influenza has been reported in the United States and is nearing the geographic area. For more information, see <a href="http://www.cdc.gov/flu/weekly/fluactivity.htm">www.cdc.gov/flu/weekly/fluactivity.htm</a> . (Insert name, title and contact information of person responsible.) _____  <input type="checkbox"/> A written protocol has been developed for weekly or daily monitoring of seasonal influenza-like illness in residents and staff. For more information, see <a href="http://www.cdc.gov/flu/professionals/diagnosis/">www.cdc.gov/flu/professionals/diagnosis/</a> . (Having a system for tracking illness trends during seasonal influenza will ensure that the facility can detect stressors that may affect operating capacity, including staffing and supply needs, during a pandemic.)  <input type="checkbox"/> A protocol has been developed for the evaluation and diagnosis of residents and/or staff with symptoms of pandemic influenza.  <input type="checkbox"/> Assessment for seasonal influenza is included in the evaluation of incoming residents. There is an admission policy or protocol to determine the appropriate placement and isolation of patients with an influenza-like illness. (The process used during periods of seasonal influenza can be applied during pandemic influenza.)

### 3. Elements of an influenza pandemic plan (continued).

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A system is in place to monitor for, and internally review transmission of, influenza among patients and staff in the facility. Information from this monitoring system is used to implement prevention interventions (e.g., isolation, cohorting). (This system will be necessary for assessing pandemic influenza transmission.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A facility communication plan has been developed. For more information, see <a href="http://www.hhs.gov/pandemicflu/plan/sup10.htm">www.hhs.gov/pandemicflu/plan/sup10.htm</a>.</p> <input type="checkbox"/> Key public health points of contact during an influenza pandemic influenza have been identified. (Insert name, title and contact information for each.)
			<input type="checkbox"/> Local health department contact: _____
			<input type="checkbox"/> State health department contact: _____
			<input type="checkbox"/> A person has been assigned responsibility for communications with public health authorities during a pandemic. (Insert name, title and contact information.) _____
			<input type="checkbox"/> A person has been assigned responsibility for communications with staff, residents, and their families regarding the status and impact of pandemic influenza in the facility. (Having one voice that speaks for the facility during a pandemic will help ensure the delivery of timely and accurate information.)
			<input type="checkbox"/> Contact information for family members or guardians of facility residents is up-to-date.
			<input type="checkbox"/> Communication plans include how signs, phone trees, and other methods of communication will be used to inform staff, family members, visitors, and other persons coming into the facility (e.g., sales and delivery people) about the status of pandemic influenza in the facility.
			<input type="checkbox"/> A list has been created of other healthcare entities and their points of contact (e.g., other long-term care and residential facilities, local hospitals' emergency medical services, relevant community organizations [including those involved with disaster preparedness]) with whom it will be necessary to maintain communication during a pandemic. (Insert location of contact list and attach a copy to the pandemic plan.)
			<input type="checkbox"/> A facility representative(s) has been involved in the discussion of local plans for inter-facility communication during a pandemic.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>A plan is in place to provide education and training to ensure that all personnel, residents, and family members of residents understand the implications of, and basic prevention and control measures for, pandemic influenza.</p> <input type="checkbox"/> A person has been designated with responsibility for coordinating education and training on pandemic influenza (e.g., identifies and facilitates access to available programs, maintains a record of personnel attendance). (Insert name, title, and contact information.) _____
			<input type="checkbox"/> Current and potential opportunities for long-distance (e.g., web-based) and local (e.g., health department or hospital-sponsored) programs have been identified. See <a href="http://www.cdc.gov/flu/professionals/training/">www.cdc.gov/flu/professionals/training/</a> .
			<input type="checkbox"/> Language and reading-level appropriate materials have been identified to supplement and support education and training programs (e.g., available through state and federal public health agencies such as <a href="http://www.cdc.gov/flu/groups.htm">www.cdc.gov/flu/groups.htm</a> and through professional organizations), and a plan is in place for obtaining these materials.
			<input type="checkbox"/> Education and training includes information on infection control measures to prevent the spread of pandemic influenza.
			<input type="checkbox"/> The facility has a plan for expediting the credentialing and training of non-facility staff brought in from other locations to provide patient care when the facility reaches a staffing crisis.
			<input type="checkbox"/> Informational materials (e.g., brochures, posters) on pandemic influenza and relevant policies (e.g., suspension of visitation, where to obtain facility or family member information) have been developed or identified for residents and their families. These materials are language and reading-level appropriate, and a plan is in place to disseminate these materials in advance of the actual pandemic. For more information, see <a href="http://www.cdc.gov/flu/professionals/infectioncontrol/index.htm">www.cdc.gov/flu/professionals/infectioncontrol/index.htm</a> and <a href="http://www.cdc.gov/flu/groups.htm">www.cdc.gov/flu/groups.htm</a> .



### 3. Elements of an influenza pandemic plan (continued).

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	An infection control plan is in place for managing residents and visitors with pandemic influenza that includes the following: (For information on infection control recommendations for pandemic influenza, see <a href="http://www.hhs.gov/pandemicflu/plan/sup4.html">www.hhs.gov/pandemicflu/plan/sup4.html</a> .)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	An infection control policy that requires direct care staff to use Standard ( <a href="http://www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html">www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html</a> ) and Droplet Precautions (i.e., mask for close contact) ( <a href="http://www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html">www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html</a> ) with symptomatic residents.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A plan for implementing Respiratory Hygiene/Cough Etiquette throughout the facility. (See <a href="http://www.cdc.gov/flu/professionals/infectioncontrol/resphgiene.htm">www.cdc.gov/flu/professionals/infectioncontrol/resphgiene.htm</a> .)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A plan for cohorting symptomatic residents or groups using one or more of the following strategies: <sup>2</sup> 1) confining symptomatic residents and their exposed roommates to their room, 2) placing symptomatic residents together in one area of the facility, or 3) closing units where symptomatic and asymptomatic residents reside (i.e., restricting all residents to an affected unit, regardless of symptoms). The plan includes a stipulation that, where possible, staff who are assigned to work on affected units will not work on other units.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Criteria and protocols for closing units or the entire facility to new admissions when pandemic influenza is in the facility have been developed.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Criteria and protocols for enforcing visitor limitations have been developed.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	An occupational health plan for addressing staff absences and other related occupational issues has been developed that includes the following:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A liberal/non-punitive sick leave policy that addresses the needs of symptomatic personnel and facility staffing needs. The policy considers: <ul style="list-style-type: none"> <li>- The handling of personnel who develop symptoms while at work.</li> <li>- When personnel may return to work after having pandemic influenza.</li> <li>- When personnel who are symptomatic, but well enough to work, will be permitted to continue working.</li> <li>- Personnel who need to care for family members who become ill.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A plan to educate staff to self-assess and report symptoms of pandemic influenza before reporting for duty.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A list of mental health and faith-based resources that will be available to provide counseling to personnel during a pandemic.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A system to monitor influenza vaccination of personnel.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A plan for managing personnel who are at increased risk for influenza complications (e.g., pregnant women, immunocompromised workers) by placing them on administrative leave or altering their work location.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A vaccine and antiviral use plan has been developed.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> CDC and state health department websites have been identified for obtaining the most current recommendations and guidance for the use, availability, access, and distribution of vaccines and antiviral medications during a pandemic. For more information, see <a href="http://www.hhs.gov/pandemicflu/plan/sup6.html">www.hhs.gov/pandemicflu/plan/sup6.html</a> and <a href="http://www.hhs.gov/pandemicflu/plan/sup7.html">www.hhs.gov/pandemicflu/plan/sup7.html</a> .
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> HHS guidance has been used to estimate the number of personnel and residents who would be targeted as first and second priority for receipt of pandemic influenza vaccine or antiviral prophylaxis. For more information, see <a href="http://www.hhs.gov/pandemicflu/plan/sup6.html">www.hhs.gov/pandemicflu/plan/sup6.html</a> and <a href="http://www.hhs.gov/pandemicflu/plan/sup7.html">www.hhs.gov/pandemicflu/plan/sup7.html</a> .
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A plan is in place for expediting delivery of influenza vaccine or antiviral prophylaxis to residents and staff as recommended by the state health department.

2. CDC guidance on preventing and controlling influenza transmission in long-term care facilities will be a useful resource during pandemic influenza. (See [www.cdc.gov/flu/professionals/infectioncontrol/longtermcare.htm](http://www.cdc.gov/flu/professionals/infectioncontrol/longtermcare.htm).)

### 3. Elements of an influenza pandemic plan (continued).

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Issues related to surge capacity during a pandemic have been addressed.</p> <p><input type="checkbox"/> A contingency staffing plan has been developed that identifies the minimum staffing needs and prioritizes critical and non-essential services based on residents' health status, functional limitations, disabilities, and essential facility operations.</p> <p><input type="checkbox"/> A person has been assigned responsibility for conducting a daily assessment of staffing status and needs during an influenza pandemic. (Insert name, title and contact information.)</p> <hr/> <p><input type="checkbox"/> Legal counsel and state health department contacts have been consulted to determine the applicability of declaring a facility "staffing crisis" and appropriate emergency staffing alternatives, consistent with state law.</p> <p><input type="checkbox"/> The staffing plan includes strategies for collaborating with local and regional planning and response groups to address widespread healthcare staffing shortages during a crisis.</p> <p><input type="checkbox"/> Estimates have been made of the quantities of essential materials and equipment (e.g., masks, gloves, hand hygiene products, intravenous pumps) that would be needed during a six-week pandemic.</p> <p><input type="checkbox"/> A plan has been developed to address likely supply shortages, including strategies for using normal and alternative channels for procuring needed resources.</p> <p><input type="checkbox"/> Alternative care plans have been developed for facility residents who need acute care services when hospital beds become unavailable.</p> <p><input type="checkbox"/> Surge capacity plans include strategies to help increase hospital bed capacity in the community.</p> <ul style="list-style-type: none"> <li>- Signed agreements have been established with area hospitals for admission to the long-term care facility of non-influenza patients to facilitate utilization of acute care resources for more seriously ill patients.</li> <li>- Facility space has been identified that could be adapted for use as expanded inpatient beds and information provided to local and regional planning contacts.</li> </ul> <p><input type="checkbox"/> A contingency plan has been developed for managing an increased need for post mortem care and disposition of deceased residents.</p> <p><input type="checkbox"/> An area in the facility that could be used as a temporary morgue has been identified.</p> <p><input type="checkbox"/> Local plans for expanding morgue capacity have been discussed with local and regional planning contacts.</p>

## ***Attachment I – Key Infection Control Practices***

The following table summarizes the key infection control practices. For a more comprehensive review refer to <http://www.hhs.gov/pandemicflu/plan/sup4.html#box1>

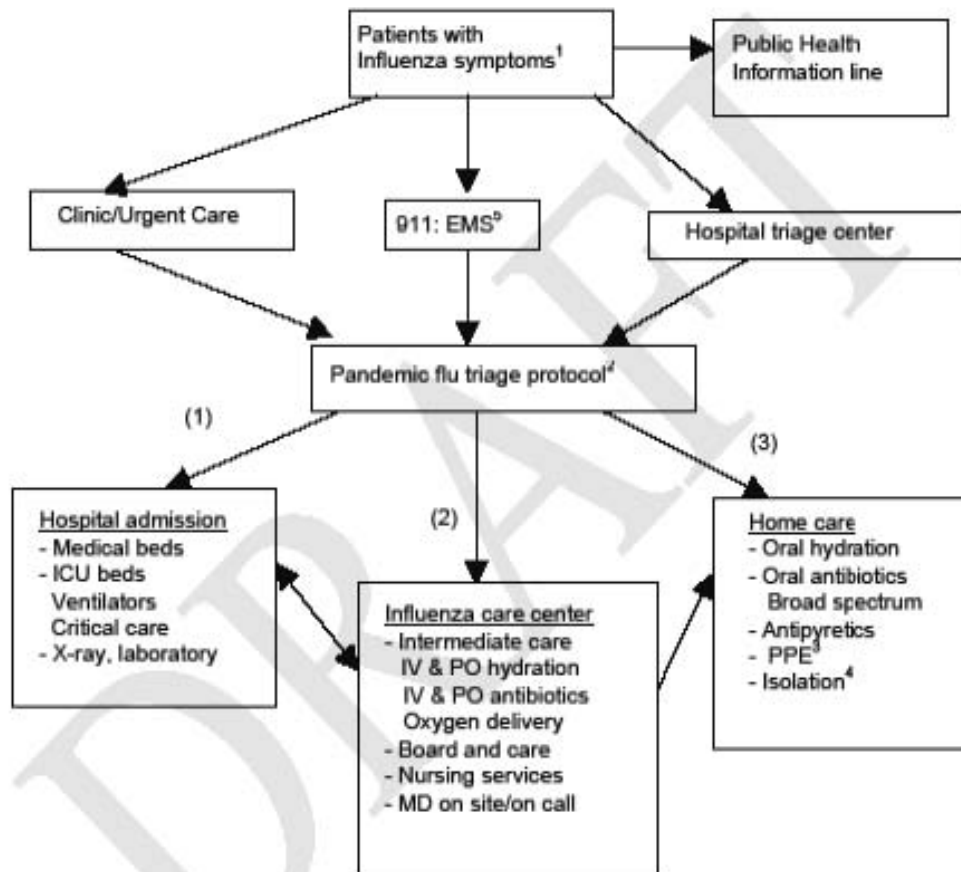
<b>Hand hygiene</b>	Perform hand hygiene after touching blood, body fluids, secretions, excretions, and contaminated items; after removing gloves; and between patient contacts. Hand hygiene includes both handwashing with either plain or antimicrobial soap and water or use of alcohol-based products (gels, rinses, foams) that contain an emollient and do not require the use of water. If hands are visibly soiled or contaminated with respiratory secretions, they should be washed with soap (either non-antimicrobial or antimicrobial) and water. In the absence of visible soiling of hands, approved alcohol-based products for hand disinfection are preferred over antimicrobial or plain soap and water because of their superior microbicidal activity, reduced drying of the skin, and convenience.
<b>Personal protective equipment (PPE)</b>  B. Gloves C. Gown D. Face/eye protection (e.g., surgical or procedure mask and goggles or a face shield)	<ul style="list-style-type: none"> <li>• For touching blood, body fluids, secretions, excretions, and contaminated items; for touching mucous membranes and nonintact skin</li> <li>• During procedures and patient-care activities when contact of clothing/exposed skin with blood/body fluids, secretions, and excretions is anticipated</li> <li>• During procedures and patient care activities likely to generate splash or spray of blood, body fluids, secretions, excretions</li> </ul>
<b>Safe work practices</b>	Avoid touching eyes, nose, mouth, or exposed skin with contaminated hands (gloved or ungloved); avoid touching surfaces with contaminated gloves and other PPE that are not directly related to patient care (e.g., door knobs, keys, light switches).
<b>Patient resuscitation</b>	Avoid unnecessary mouth-to-mouth contact; use mouthpiece, resuscitation bag, or other ventilation devices to prevent contact with mouth and oral secretions.
<b>Soiled patient care equipment</b>	Handle in a manner that prevents transfer of microorganisms to oneself, others, and environmental surfaces; wear gloves if visibly contaminated; perform hand hygiene after handling equipment.
<b>Soiled linen and laundry</b>	Handle in a manner that prevents transfer of microorganisms to oneself, others, and to environmental surfaces; wear gloves (gown if necessary) when handling and transporting soiled linen and laundry; and perform hand hygiene.
<b>Needles and other sharps</b>	Use devices with safety features when available; do not recap, bend, break or hand-manipulate used needles; if recapping is necessary, use a one-handed scoop technique; place used sharps in a puncture-resistant container.
<b>Environmental cleaning and disinfection</b>	Use EPA-registered hospital detergent-disinfectant; follow standard facility procedures for cleaning and disinfection of environmental surfaces; emphasize

	cleaning/disinfection of frequently touched surfaces (e.g., bed rails, phones, lavatory surfaces).
<b>Disposal of solid waste</b>	Contain and dispose of solid waste (medical and non-medical) in accordance with facility procedures and/or local or state regulations; wear gloves when handling waste; wear gloves when handling waste containers; perform hand hygiene.
<b>Respiratory hygiene/cough etiquette</b> Source control measures for persons with symptoms of a respiratory infection; implement at first point of encounter (e.g., triage/reception areas) within a healthcare setting.	Cover the mouth/nose when sneezing/coughing; use tissues and dispose in no-touch receptacles; perform hand hygiene after contact with respiratory secretions; wear a mask (procedure or surgical) if tolerated; sit or stand as far away as possible (more than 3 feet) from persons who are not ill.
<b>Droplet Precautions</b>	<a href="http://www.cdc.gov/ncidod/hip/ISOLAT/droplet_prec_excerpt.htm">www.cdc.gov/ncidod/hip/ISOLAT/droplet_prec_excerpt.htm</a>
<b>Patient placement</b>	Place patients with influenza in a private room or cohort with other patients with influenza.* Keep door closed or slightly ajar; maintain room assignments of patients in nursing homes and other residential settings; and apply droplet precautions to all persons in the room.  *During the early stages of a pandemic, infection with influenza should be laboratory-confirmed, if possible. Personal protective equipment Wear a surgical or procedure mask for entry into patient room; wear other PPE as recommended for standard precautions.
<b>Patient transport</b>	Limit patient movement outside of room to medically necessary purposes; have patient wear a procedure or surgical mask when outside the room.
<b>Other</b>	Follow standard precautions and facility procedures for handling linen and laundry and dishes and eating utensils, and for cleaning/disinfection of environmental surfaces and patient care equipment, disposal of solid waste, and postmortem care.
<b>Aerosol-Generating Procedures</b>	During procedures that may generate small particles of respiratory secretions (e.g., endotracheal intubation, bronchoscopy, nebulizer treatment, suctioning), healthcare personnel should wear gloves, gown, face/eye protection, and a fit-tested N95 respirator or other appropriate particulate respirator.

All health care settings should follow the infection control guidance in S4-IV.A-E at <http://www.hhs.gov/pandemicflu/plan/sup4.html#guide>. Setting-specific infection control issues should also be considered.

**Attachment J –**  
**Santa Clara County Health Department**  
 (www.naccho.org/equiph/detail.cfm?id=328.)

**Clinical Triage Guidelines during Pandemic Critical Resources Stage**  
**Santa Clara County**



**Notes:**

1. Influenza symptoms: High fever (T > 38) plus sore throat, cough or shortness of breath.  
 Other symptoms: weakness, myalgias, abdominal symptoms, epistaxis, conjunctivitis, nasal congestions, chills, headache.
2. Pandemic flu triage protocol:  
 Available resources: vital signs, examination, pulse oximetry  
 Patient: wears respiratory mask on presentation  
 Personnel: respiratory and universal precautions  
 Evaluation: age, living conditions, functional status, sick contacts

Other comorbid medical conditions

A. Adults and teens >12 years of age: modified pneumonia severity index (PSI) calculation

<u>Characteristic</u>	<u>Points assigned</u>
Age	Number of years
Significant comorbid illness	+10
Physical exam	
Altered mental status	+20
Respirations >30	+20
Systolic BP<90	+20
Pulse >125	+20
Pulse oximetry <90%	+20

(1) Admission to hospital: Score > 90 or

- Toxic appearance or rapid decompensation (especially important in adolescents and in pregnant women)
- Significant hypoxia – O<sub>2</sub> saturation < 88%
- Patients whose level of disability or medical complexity (e.g., on dialysis, severe quadriplegia, dementia, etc.) would overwhelm the ability of assigned staff to provide basic care for other patients at Influenza Care Centers

(2) Admission to Influenza Care Center: Score < 90 and

- Needs closer monitoring and nursing care (for example, IV fluids, IV antibiotics, etc.), or
- Unable to care for self or return if symptoms worsen, or
- No hospital beds available

(3) Discharge to home:

- Score > 90 with poor prognosis and unlikely to benefit from hospitalization, or
- Score < 90 and able to care for self or has caregiver, and able to return if symptoms worsen.

B. Children 12 yrs of age and younger:

Indications for hospital admission include any of the following

- Fever and age < 2 months
- Significant tachypnea
- Hypoxia on pulse oximetry
- Chest retractions, cyanosis, intermittent apnea, nasal flaring
- Toxic appearance

3. PPE: respiratory masks, antiseptics, bleach for household surfaces

4. Isolation: Keep separated from other family members as much as possible, use hand washing, and dispose of tissues in plastic bags. Wear respiratory mask when outside the home. Patient should remain isolated from other persons for at least 7 days after the onset of symptoms. [Refer to the "Home Isolation Checklist" Tool 21]

5. 911/EMS: The ability of EMS to deliver patients to a non-hospital location will require changes in current state statutes, which may come about in the context of a declaration of emergency.

**Attachment K –  
HIPAA Privacy and Disclosures in Emergency Situations**

**DEPARTMENT OF HEALTH & HUMAN SERVICES OFFICE OF THE SECRETARY**  
**Director**  
**Office for Civil Rights**  
**200 Independence Ave., SW Rm 509F**  
**Washington, DC 20201**

September 2, 2005

**U.S. Department of Health and Human Services Office for Civil Rights**

**HURRICANE KATRINA BULLETIN:  
HIPAA PRIVACY and DISCLOSURES IN EMERGENCY SITUATIONS**

Persons who are displaced and in need of health care as a result of a severe disaster – such as Hurricane Katrina – need ready access to health care and the means of contacting family and caregivers. We provide this bulletin to emphasize how the HIPAA Privacy Rule allows patient information to be shared to assist in disaster relief efforts, and to assist patients in receiving the care they need.

**Providers and health plans covered by the HIPAA Privacy Rule can share patient information in all the following ways:**

- **TREATMENT.** *Health care providers can share patient information as necessary to provide treatment.*
  - Treatment includes:
    - Sharing information with other providers (including hospitals and clinics),
    - Referring patients for treatment (including linking patients with available providers in areas where the patients have relocated), and
    - Coordinating patient care with others (such as emergency relief workers or others that can help in finding patients appropriate health services).
  - Providers can also share patient information to the extent necessary to seek payment for these health care services.
- **NOTIFICATION.** *Health care providers can share patient information as necessary to identify, locate and notify family members, guardians, or anyone else responsible for the individual's care of the individual's location, general condition, or death.*
  - The health care provider should get verbal permission from individuals, when possible; but, if the individual is incapacitated or not available, providers may share information for these purposes if, in their professional judgment, doing so is in the patient's best interest.
    - Thus, when necessary, the hospital may notify the police, the press, or the public at large to the extent necessary to help locate, identify or otherwise

## References

- US Department of Health and Human Services, Pandemic Flu Plan, November 2005, [www.hhs.gov/pandemicflu/plan](http://www.hhs.gov/pandemicflu/plan)
- US Department of Health and Human Services, HHS Pandemic Plan Supplement 3, April 5, 2006, [www.hhs.gov/pandemicflu/plan/sup3.html](http://www.hhs.gov/pandemicflu/plan/sup3.html)
- US Department of Health and Human Services, HHS Pandemic Plan Supplement 4, December 2, 2005, [www.hhs.gov/pandemicflu/plan/sup4.html](http://www.hhs.gov/pandemicflu/plan/sup4.html)
- US Department of Health and Human Services, HHS Pandemic Plan Supplement 5, December 2, 2005, [www.hhs.gov/pandemicflu/plan/sup5.html](http://www.hhs.gov/pandemicflu/plan/sup5.html)
- New York City Department of Health and Mental Hygiene, Pandemic Influenza Preparedness and Response Plan, July 2006, [www.nyc.gov/html/doh/downloads/pdf/cd/cd.panflu-plan.pdf](http://www.nyc.gov/html/doh/downloads/pdf/cd/cd.panflu-plan.pdf)
- Centers for Disease Control and Prevention, FluSurge, [www.cdc.gov/flu/flusurge.htm](http://www.cdc.gov/flu/flusurge.htm)
- Agency for Healthcare Research and Quality by Health Systems Research, Inc., Altered Standards of Care, Publication No. 05-0043, April 2005, [www.ahrq.gov/research/altstand/](http://www.ahrq.gov/research/altstand/)
- Rocky Mountain Regional Care Model for Bioterrorism Events: Local Care Sites During an Emergency Final Report to the AHRQ, Alternative Care Sites, Publication No. 04-0075, August 2004, [www.ahrq.gov/research/altsites](http://www.ahrq.gov/research/altsites)
- Department of Defense, Modular Emergency Medical Systems, June 1, 2002
- US Department of Health and Human Services, Hospital Checklist, March 1, 2006, [www.hhs.gov/pandemicflu/plan/sup3.html#app2](http://www.hhs.gov/pandemicflu/plan/sup3.html#app2)
- US Department of Health and Human Services, EMS Checklist, March 1, 2006, Version 2.1, [www.pandemicflu.gov/plan/emgncymedical.html](http://www.pandemicflu.gov/plan/emgncymedical.html)
- US Department of Health and Human Services, Home Health Care Checklist, March 1, 2006, Version 5, [www.pandemicflu.gov/plan/healthcare.html](http://www.pandemicflu.gov/plan/healthcare.html)
- US Department of Health and Human Services, Medical Offices and Clinics Checklist, March 6, 2006, Version 2.2, [www.pandemicflu.gov/plan/medical.html](http://www.pandemicflu.gov/plan/medical.html)
- US Department of Health and Human Services, Long Term Care Checklist, May 1, 2006, Version 1, [www.pandemicflu.gov/plan/LongTermCarechecklist.html](http://www.pandemicflu.gov/plan/LongTermCarechecklist.html)
- US Department of Health and Human Services, State and Local Checklist, January 9, 2006, Version 1.1, [www.pandemicflu.gov/plan/statelocalchecklist.html](http://www.pandemicflu.gov/plan/statelocalchecklist.html)
- LEAD-R Program Description



## **Pandemic Influenza Phase Matrix**

Hick, John L., MD, O’Laughlin, Daniel, MD “Surge Capacity Triage”, 2006 by the Society for Academic Emergency Medicine, ISSN 1069-6563

Joint Commission on Accreditation of Healthcare Organizations, “Surge Hospital: Providing Safe Care in Emergencies”, 2006

American College of Physicians, The Health Care Response to Pandemic Influenza. Philadelphia: American College of Physicians; 2006; Position Paper (available from American College of Physicians, 190 N. Independence Mall West, Philadelphia PA 19106)

## Footnotes

### Case Detection and Clinical Management during the Interpandemic and Pandemic Alert Periods

#### Situation

No human cases of novel influenza are present in the community.

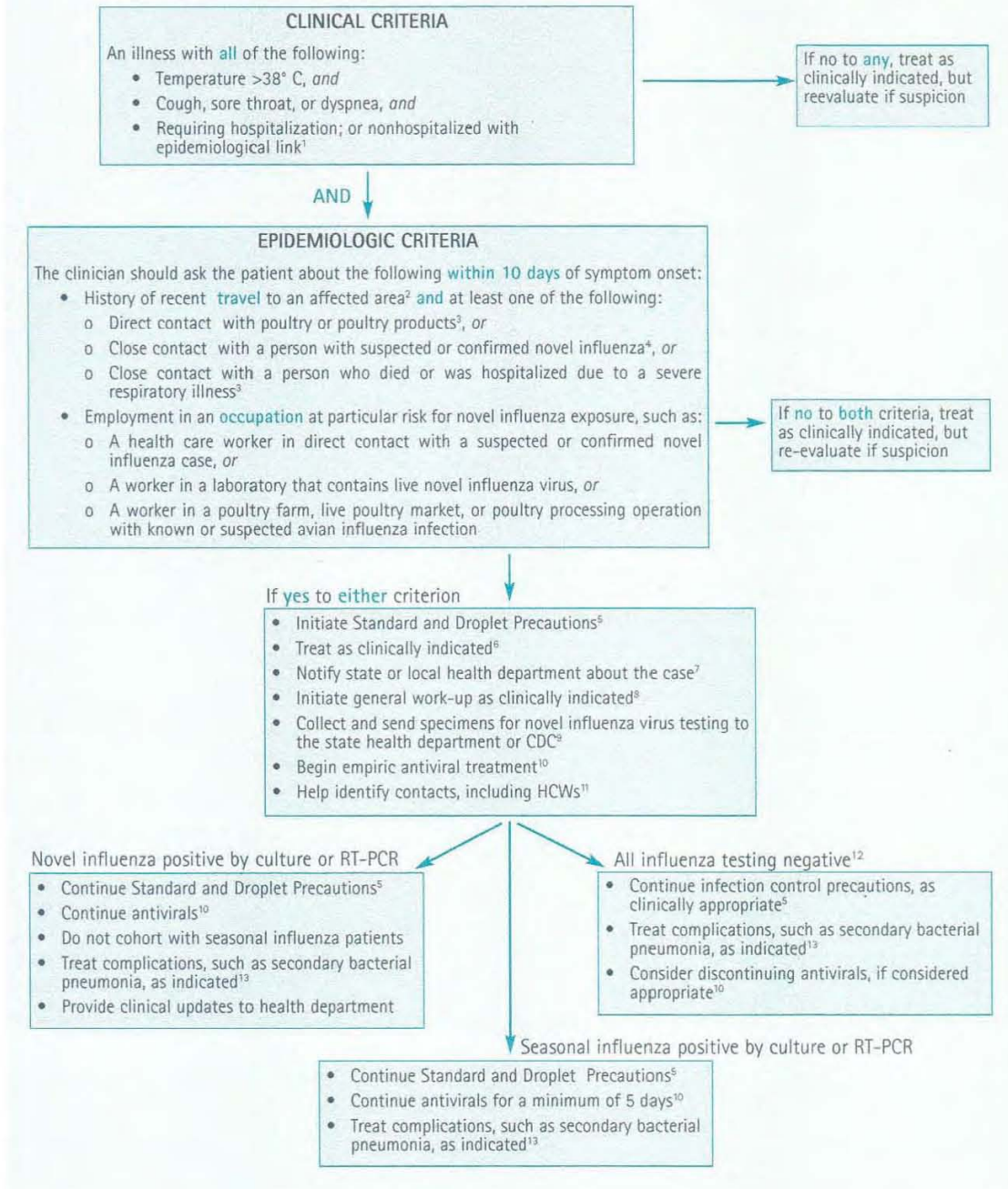
Human cases might be present in another country or another region of the United States.

1. Further evaluation and diagnostic testing should also be considered for outpatients with strong epidemiologic risk factors and mild or moderate illness. (See Box 2).
2. Updated information on areas where novel influenza virus transmission is suspected or documented is available on the CDC web site at <http://www.cdc.gov/travel/http://www.cdc.gov/travel/> and on the WHO website at [www.who.int/en/](http://www.who.int/en/).
3. For persons who live in or visit affected areas, close contact includes touching live poultry (well-appearing, sick or dead) or touching or consuming uncooked poultry products, including blood. For animal or market workers, it includes touching surfaces contaminated with bird feces. In recent years, most instances of human infection with a novel influenza A virus having pandemic potential, including influenza A (H5N1), are thought to have occurred through direct transmission from domestic poultry. A small number of cases are also thought to have occurred through limited person-to-person transmission or consumption of uncooked poultry products. Transmission of novel influenza viruses from other infected animal populations or by contact with fecally contaminated surfaces remains a possibility. These guidelines will be updated as needed if alternate sources of novel influenza viruses are suspected or confirmed.
4. Close contact includes direct physical contact, or approach within 3 feet (1 meter) of a person with suspected or confirmed novel influenza.
5. Standard and Droplet Precautions should be used when caring for patients with novel influenza or seasonal influenza (Table and Supplement 4). Information on infection precautions that should be implemented for all respiratory illnesses (i.e., Respiratory Hygiene/Cough Etiquette) is provided at: [www.cdc.gov/flu/professionals/infectioncontrol/resphgiene.htm](http://www.cdc.gov/flu/professionals/infectioncontrol/resphgiene.htm)
6. Hospitalization should be based on all clinical factors, including the potential for infectiousness and the ability to practice adequate infection control. If hospitalization is not clinically warranted, and treatment and infection control is feasible in the home, the patient may be managed as an outpatient. The patient and his or her household should be provided with information on infection control procedures to follow at home (Box 3). The patient and close contacts should be monitored for illness by local public health department staff.
7. Guidance on how to report suspected cases of novel influenza is provided in Supplement 1.

8. The general work-up should be guided by clinical indications. Depending on the clinical presentation and the patient's underlying health status, initial diagnostic testing might include:
  - Pulse oximetry
  - Chest radiograph
  - Complete blood count (CBC) with differential
  - Blood cultures
  - Sputum (in adults), tracheal aspirate, pleural effusion aspirate (if pleural effusion is present) Gram stain and culture
  - Antibiotic susceptibility testing (encouraged for all bacterial isolates)
  - Multivalent immunofluorescent antibody testing or PCR of nasopharyngeal aspirates or swabs for common viral respiratory pathogens, such as influenza A and B, adenovirus, parainfluenza viruses, and respiratory syncytial virus, particularly in children
  - In adults with radiographic evidence of pneumonia, Legionella and pneumococcal urinary antigen testing
  - If clinicians have access to rapid and reliable testing (e.g., PCR) for *M. pneumoniae* and *C. pneumoniae*, adults and children <5 yrs with radiographic pneumonia should be tested.
  - Comprehensive serum chemistry panel, if metabolic derangement or other end-organ involvement, such as liver or renal failure, is suspected See Box 2 for additional details.
9. Guidelines for novel influenza virus testing can be found in Supplement 2. All of the following respiratory specimens should be collected for novel influenza A virus testing: nasopharyngeal swab; nasal swab, wash, or aspirate; throat swab; and tracheal aspirate (for intubated patients), stored at 4° C in viral transport media; and acute and convalescent serum samples.
10. Strategies for the use of antiviral drugs are provided in Supplement 7.
11. Guidelines for the management of contacts in a healthcare setting are provided in Supplement 3.
12. Given the unknown sensitivity of tests for novel influenza viruses, interpretation of negative results should be tailored to the individual patient in consultation with the local health department. Novel influenza directed management may need to be continued, depending on the strength of clinical and epidemiologic suspicion. Antiviral therapy and isolation precautions for novel influenza may be discontinued on the basis of an alternative diagnosis. The following criteria may be considered for this evaluation:
  - Absence of strong epidemiologic link to known cases of novel influenza
  - Alternative diagnosis confirmed using a test with a high positive-predictive value
  - Clinical manifestations explained by the alternative diagnosis
13. Guidance on the evaluation and treatment of suspected post-influenza community-associated pneumonia is provided in Appendix 3.

## Case Detection and Clinical Management During the Interpandemic and Pandemic Alert Periods

Situation: No human cases of novel influenza are present in the community. Human cases might be present in another country or another region of the United States.



## Footnotes

### Case Detection and Clinical Management during the Pandemic Period

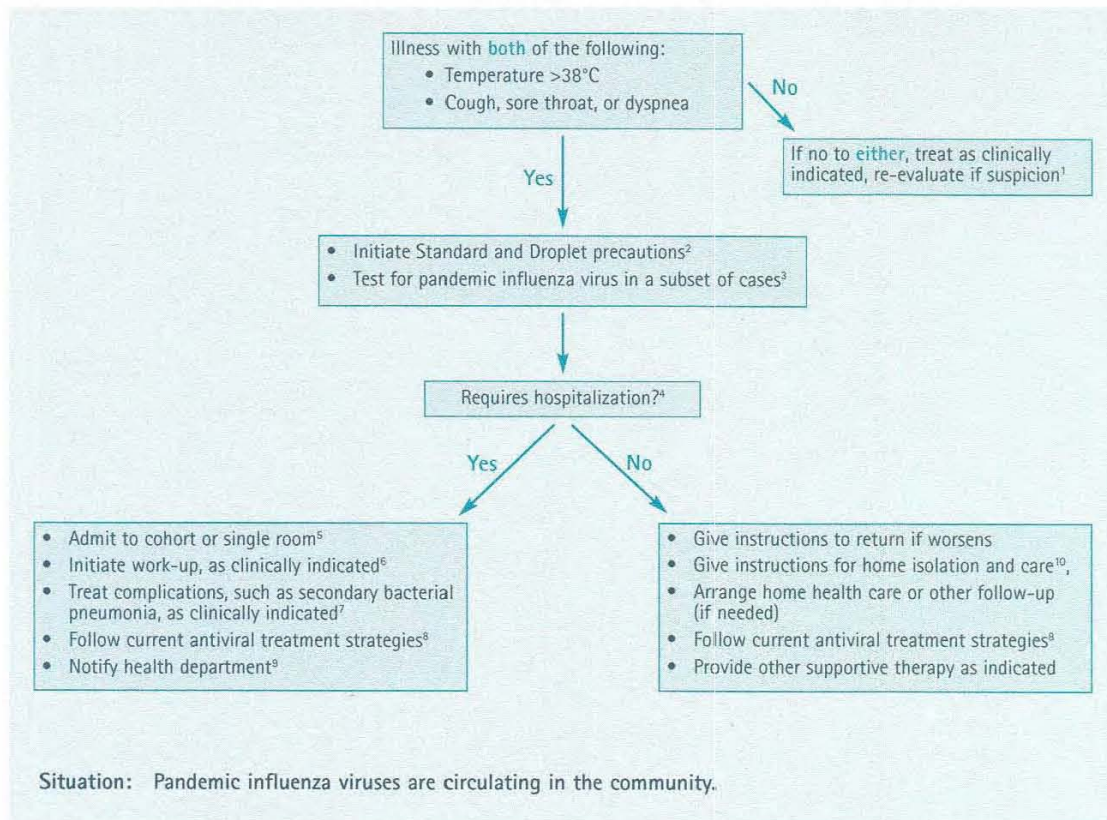
1. Antiviral therapy and isolation precautions for pandemic influenza should be discontinued on the basis of an alternative diagnosis only when both the following criteria are met:
  - Alternative diagnosis confirmed using a test with a high positive-predictive value, and
  - Clinical manifestations entirely explained by the alternative diagnosis
2. Standard and Droplet Precautions should be used when caring for patients with novel influenza or seasonal influenza (Table and Supplement 4). Information on infection precautions that should be implemented for all respiratory illnesses (i.e., Respiratory Hygiene/Cough Etiquette) is provided at:  
[www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm](http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm)
3. Guidance on laboratory testing during the Pandemic Period can be found in Supplement 2. Generally, specimens should include respiratory samples (e.g., nasopharyngeal wash/aspirate; nasopharyngeal, nasal or oropharyngeal swabs, or tracheal aspirates) stored at 4°C in viral transport media.

Routine laboratory confirmation of clinical diagnoses will be unnecessary as pandemic activity becomes widespread in a community. CDC will continue to work with state health laboratories to conduct virologic surveillance to monitor antigenic changes and antiviral resistance in the pandemic virus strains throughout the Pandemic Period.

4. The decision to hospitalize should be based on a clinical assessment of the patient and the availability of hospital beds and personnel.
5. Guidelines on cohorting can be found in Supplement 4. Laboratory confirmation of influenza infection is recommended when possible before cohorting patients.
6. The general work-up should be guided by clinical indications. Depending on the clinical presentation and the patient's underlying health status, initial diagnostic testing might include:
  - Pulse oximetry
  - Chest radiograph
  - Complete blood count (CBC) with differential
  - Blood cultures
  - Sputum (in adults) or tracheal aspirate Gram stain and culture
  - Antibiotic susceptibility testing (encouraged for all bacterial isolates)
  - Multivalent immunofluorescent antibody testing of nasopharyngeal aspirates or swabs for common viral respiratory pathogens, such as influenza A and B, adenovirus, parainfluenza viruses, and respiratory syncytial virus, particularly in children
  - In adults with radiographic evidence of pneumonia, Legionella and pneumococcal urinary antigen testing
  - If clinicians have access to rapid and reliable testing (e.g., PCR) for *M. pneumoniae* and *C. pneumoniae*, adults and children <5 yrs with radiographic pneumonia should be tested.
  - Comprehensive serum chemistry panel, if metabolic derangement or other end-organ involvement, such as liver or renal failure, is suspected See Box 2 for additional details.

7. Guidance on the evaluation and treatment of community acquired pneumonia and suspected post-influenza community-acquired bacterial pneumonia are provided in Appendix 3.
8. Strategies for the use of antiviral drugs are provided in Supplement 7.
9. Guidance on the reporting of pandemic influenza cases is provided in Supplement
10. Patients with mild disease should be provided with standardized instructions on home management of fever and dehydration, pain relief, and recognition of deterioration in status. Patients should also receive information on infection control measures to follow at home (Box 4). Patients cared for at home should be separated from other household members as much as possible. All household members should carefully follow recommendations for hand hygiene, and tissues used by the ill patient should be placed in a bag and disposed of with other household waste. Infection within the household may be minimized if a primary caregiver is designated; ideally, someone who does not have an underlying condition that places them at increased risk of severe influenza disease. Although no studies have assessed the use of facemasks or respirators at home to decrease the spread of infection, the caregiver may consider use of an N-95 respirator or surgical facemask when caring for sick individuals. <http://www.pandemicflu.gov/plan/community/maskguidancecommunity.html> Those who are ill with the flu should consider wearing a surgical facemask to decrease the risk from coughing and sneezing on others. Separation of eating utensils for use by a patient with influenza is not necessary, as long as they are washed with warm water and soap. Additional information on measures to limit the spread of pandemic influenza in the home and community can be found in Supplement 4 and Supplement 8.

## Case Detection and Clinical Management During the Pandemic Period





## Pandemic Influenza Plan – Laboratory Preparedness

---

For more information, contact chair Mary Menges at [Mary.Menges@dhss.mo.gov](mailto:Mary.Menges@dhss.mo.gov) or 573.522.1444.

### INTRODUCTION

A well-organized network of laboratories, capable of rapidly and correctly identifying and subtyping influenza viruses is critical to recognizing and managing an influenza pandemic. Recognition of novel strains of influenza virus will be dependent upon early detection and sampling of initial clinical cases associated with the pandemic. Since the symptoms of influenza are nonspecific and are similar to those caused by a number of respiratory pathogens, laboratory testing must be performed to identify the causative agent as a form of the influenza virus.

Routine testing of human specimens for the presence of microbial agents is an activity that places all clinical laboratories in a position to serve in a “sentinel” capacity. By default, these laboratories will be at the front line for detecting the first clinical cases of novel influenza strains, such as H5N1 avian influenza.

It is essential that the Missouri State Public Health Laboratory (MSPHL) be prepared to deal with novel influenza strains. The MSPHL will work with the Centers for Disease Control (CDC) to monitor year-round influenza subtypes and to detect new subtypes through laboratory-based surveillance. MSPHL will also provide advanced testing, unavailable at the sentinel level, including viral culture, molecular detection and subtyping of viral isolates. In the event of an influenza pandemic, the MSPHL will work with CDC to provide guidelines for specimen management and diagnostic testing as the pandemic evolves.

Trainings and exercises are part of the preparedness activities that MSPHL participates in throughout the year. Every month MSPHL exercises the laboratory influenza-testing plan by testing scientist’s competencies in polymerase chain reaction (PCR) testing. The Missouri Department of Health and Senior Services’ (DHSS) MSPHL, Bureau of Communicable Disease Control and Prevention and Bureau of Immunization Assessment and Assurance in cooperation with local public health agencies (LPHAs) perform year round, outbreak and seasonal influenza surveillance. In support of this influenza surveillance, MSPHL and program staff conduct training sessions each year at DHSS area or district health offices. Such training provides hands on opportunities for health care professionals to ask questions and gain knowledge on issues related to seasonal , avian and pandemic influenza; data collection and interpretation; laboratory testing issues; and vaccinations. These trainings serve as an opportunity to review packaging and shipping protocols, reporting mechanisms, and responsibilities.

MSPHL in cooperation with the Council of State and Territorial Epidemiologists (CSTE) and other DHSS staff conducted six training exercises throughout the state of Missouri. Specialists in epidemiology, emerging diseases, laboratory, and veterinary public health attended these training exercises. Participants learned: to recognize and manage a human case of Highly Pathogenic Avian Influenza (HPAI); comprehend laboratory diagnosis and specimen collection; and review the investigation process of a possible human-to-human HPAI transmission. Finally, those attending the trainings participated in an exercise and case study to allow participants to walk through an investigation and response to HPAI detection among poultry.

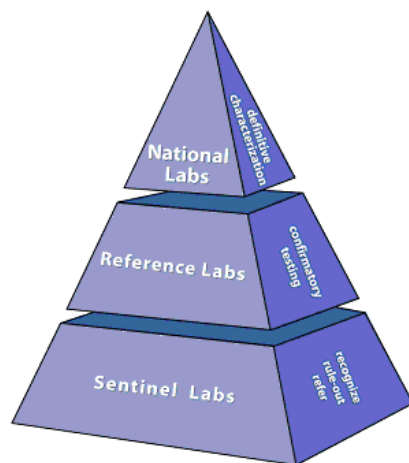


Other aspects of the Laboratory Pandemic Plan are exercised while participating in the DHSS' Disaster Situation Room drills that are held annually.

## PLANNING ASSUMPTIONS

- As part of the National Laboratory Response Network (LRN), the MSPHL will utilize approved LRN testing methods for influenza specimens during all Phases of a pandemic, or as instructed by CDC.
- MSPHL will follow all testing algorithms as disseminated by CDC (i.e., once pandemic strain is identified in a region, testing efforts may be focused to other regions as the pandemic evolves).
- MSPHL will continue to conduct year-round testing for influenza viruses in order to characterize circulating influenza strains and to monitor for novel influenza subtypes.
- MSPHL maintains testing supplies and has the capacity to meet the public health surveillance needs of the state. MSPHL is not a diagnostic influenza testing site and does not accept specimens that are not of public health significance.
- MSPHL scientists are cross-trained in an effort to assist with testing of greatest need. There is an acknowledgement that certain testing may be delayed or redistributed to other laboratories in order to meet more pressing or other critical testing demands.
- MSPHL will utilize the Missouri LRN (MOLRN) to contact member laboratories throughout the state with up-to-date testing recommendations and information.
- The Mid-America Alliance will be a resource for laboratory surge capacity.

## BACKGROUND



LRN became operational in August 1999 with the objective to ensure an effective laboratory response to bioterrorism. The LRN is an integrated network of local clinical laboratories (sentinel labs), state and local public health laboratories (reference labs) and federal laboratories (CDC, The United States Army Medical Research Institute for Infectious Diseases, Food and Drug Administration ). MOLRN is a network of Missouri laboratories that are fully equipped and trained to respond quickly to acts of chemical or biological terrorism, emerging infectious diseases, and other public health threats and emergencies. MOLRN includes MSPHL, which serves as Missouri's LRN reference laboratory, plus sentinel laboratories within the state. See <http://www.bt.cdc.gov/lrn/biological.asp>.

## **SENTINEL LABORATORIES**

According to the 2008 MOLRN survey of sentinel laboratories within Missouri, 81% perform rapid diagnostic testing for influenza viruses on respiratory specimens. Of these, 9% have the capability to perform high-complexity viral testing, including the use of viral isolation techniques. In addition, 6% of Missouri's sentinel laboratories are capable of performing PCR or immuno-fluorescence (IF) testing for rapid detection and sub-typing. These laboratories could be utilized for surge capacity should the situation warrant the need. *Hospital laboratories should not attempt to isolate influenza viruses from patients with suspected novel influenza virus infections.* Fifty-two percent (52%) of Missouri's sentinel laboratories have participated in some sort of pandemic influenza planning, but 75% of those who participated in pandemic influenza planning had not exercised the plan. Twelve percent (12%) of responding laboratories indicated they had participated in internal exercises conducted by their laboratory or hospital, and 8% have participated in external exercises conducted by a state or local agency. Only 5% responded that they had participated in both internal and external exercises.

## **MISSOURI STATE PUBLIC HEALTH LABORATORY, TESTING CAPABILITIES**

- MSPHL maintains a fully trained technical virology staff. In the summer of 2007, MSPHL moved into a new state-of-the-art facility that contains an extensive biosafety level 3 (BSL-3) laboratory. Additional scientists have been trained in PCR testing to provide back-up and support during a pandemic or public health emergency.
- MSPHL is a collaborating laboratory in the World Health Organization's Global Influenza Surveillance Network. Year-round respiratory specimens from designated sentinel laboratories are sent to the MSPHL where they are tested by viral culture. The resulting isolates are subtyped by hemagglutination/ hemagglutination inhibition (HA/HAI) testing. A representative sample of these seasonal isolates, along with isolates that cannot be typed and those from vaccine failures, are forwarded to CDC for further testing. Weekly reports of laboratory-confirmed cases of Influenza A and B viruses, by age group, are sent to CDC via the Public Health Laboratory Information System (PHLIS).
- MSPHL participates in year-round laboratory-based surveillance via the National Respiratory and Enteric Virus Surveillance System (NREVSS).
- MSPHL maintains year-round capability to perform real time polymerase chain reaction (RT-PCR) testing for influenza A (subtyping: H1, H3, H5 [HP Asian lineage]) and B viruses using the protocols for state public health laboratories developed by CDC and distributed through the Association for Public Health Laboratories (APHL) MSPHL can also perform an additional, recently released RT-PCR test to detect the highly pathogenic A/H5 (Asian Lineage) virus. New assays will be added as they are validated and released by CDC through APHL for LRN laboratories.
- MSPHL continues to participate in the LRN proficiency-testing program, the College of American Pathologists (CAP) proficiency-testing program and the CAP bioterrorism proficiency testing program and will maintain its status as a certified laboratory within the Select Agent Program.
- As part of the LRN, MSPHL has the capability of transferring samples to the nearest appropriate partner laboratory if the laboratory cannot perform the required tests or becomes overwhelmed.

- MSPHL is also a collaborating laboratory in the Mid-America Alliance whose mission is to provide mutual assistance among states during a situation that stresses individual states resources. Should testing needs overwhelm current capacity, MSPHL will utilize the Mid-America Alliance.

## **PANDEMIC INFLUENZA: LABORATORY ROLES AND RESPONSIBILITIES**

### **Sentinel and Other Private Laboratories:**

#### **Pandemic Alert Period: Phases 4 and 5**

- Inventory current levels of diagnostic supplies, including personal protective equipment; assess anticipated needs for equipment and supplies, and determine trigger point for ordering additional resources. Consider a back-up source for supplies.
- Identify key laboratory personnel whose roles are critical to maintaining laboratory operations.
- Train employees in management of respiratory specimens.
- Institute surveillance for flu-like illnesses among laboratory personnel.
- Cross-train employees to perform rapid diagnostic tests and report results.
- Qualified personnel should be identified to staff laboratory for 24/7 capabilities.
- Ensure employees are trained in the proper packaging and shipping of suspected novel influenza strains to MSPHL.
- Follow current DHSS guidelines for testing and reporting of persons with suspected infection with a novel strain of influenza virus. See [http://www.dhss.mo.gov/BT\\_Response/HUDUpdatedH5N1TestingGuidance06-19-06.pdf](http://www.dhss.mo.gov/BT_Response/HUDUpdatedH5N1TestingGuidance06-19-06.pdf) and companion document <http://www.dhss.mo.gov/Lab/Virology/RespiratoryVirusTesting.html>.

#### **Pandemic Alert Period: Phase 6**

- Follow updated DHSS guidelines for testing and reporting of persons with suspected infection with a novel strain of influenza virus, as pandemic evolves. See [http://www.dhss.mo.gov/BT\\_Response/HUDUpdatedH5N1TestingGuidance06-19-06.pdf](http://www.dhss.mo.gov/BT_Response/HUDUpdatedH5N1TestingGuidance06-19-06.pdf) and companion document. <http://www.dhss.mo.gov/Lab/Virology/RespiratoryVirusTesting.html>.
- Scale up to manage increased requests for influenza testing.
- Continue to expedite specimens from possible pandemic influenza patients to MSPHL.
- Maintain surveillance for flu-like illnesses among laboratory personnel.

### **Missouri State Public Health Laboratory**

#### **Pandemic Alert Period: Phases 4 and 5**

- Maintain frequent contact with CDC for guidance related to the novel virus, including institution of new testing algorithms, changes in procedures, availability of testing reagents, etc. as pandemic evolves. Testing protocols will be dictated by CDC algorithms and may be modified with each stage of the pandemic. Testing protocols are restricted to

state and local public health laboratories in the LRN and are distributed through APHL. CDC provides testing reagents solely to LRN laboratories.

- Inventory current levels of supplies, assess anticipated needs for equipment and supplies and determine trigger point for ordering additional resources. Include specimen mailing kits in assessment. Arrange for back-up manufacturer source for supplies and equipment.
- Enhance lab-based influenza surveillance by increasing designated sentinel sites.
- Educate sentinel laboratories, LPHAs, physicians and other network partners on how to contact MSPHL if novel influenza is suspected.
- Cross-train MSPHL technicians during regular flu season to perform rapid tests, LRN-validated RT-PCR procedures and to report results. Scale up as requests for influenza testing increase.
- Employ and train temporary staff to perform rapid tests, LRN-validated RT-PCR procedures and to report results. Scale up as requests for influenza testing increase.
- Institute surveillance for flu-like illnesses among laboratory personnel.
- Educate sentinel laboratories within Missouri which have BSL 3 facilities on the highly pathogenic nature of avian influenza A (H5N1); the H5N1 virus should be manipulated only in BSL3+ (enhanced) environment. Respiratory virus cultures should not be performed in most clinical laboratories and such cultures should not be ordered for patients suspected of having H5N1 infection. See <http://www.cdc.gov/flu/h2n2bsl3.htm>.
- Supply updated information received from CDC on an ongoing basis to MOLRN laboratories, LPHAs and other associated partners using Health Alerts, MOLRN broadcasts, updated website information and by other communication means as necessary. See <http://www.dhss.mo.gov/Lab/Virology/RespiratoryVirusTesting.html>.
- Continue ongoing training of sentinel laboratories and LPHAs in proper specimen collection, handling and packaging and shipping procedures. See [http://www.dhss.missouri.gov/Lab/Virology/sphl\\_avianflu\\_instructions.pdf](http://www.dhss.missouri.gov/Lab/Virology/sphl_avianflu_instructions.pdf).
- Communicate expeditiously to the DHSS Division of Community Public Health (DCPH) any confirmation of the novel virus within the state.
- Continue to supply sampling kits and maintain courier service to all counties to facilitate receipt of novel influenza strain at the MSPHL.

#### **Pandemic Alert Period: Phase 6**

- Utilize technicians cross-trained during regular flu season to perform rapid tests, LRN-validated RT-PCR procedures and to report results as requests for influenza testing increases.
- Utilize temporary staff as needed to meet increased staffing needs.
- Maintain frequent contact with CDC for guidance related to the novel virus, including institution of new testing algorithms, changes in procedures, availability of testing reagents, etc. as pandemic evolves.
- Supply updated information received from CDC on an ongoing basis to MOLRN laboratories, LPHAs and other associated partners using Health Alerts, MOLRN broadcasts, updated website information and by other communication means as necessary. See <http://www.dhss.mo.gov/Lab/Virology/RespiratoryVirusTesting.html>.
- Communicate expeditiously to the DCPH, initial confirmation of the novel virus within the state and trends and movement of the virus throughout the state as the pandemic evolves.

- Continue to supply sampling kits and maintain courier service to all counties to facilitate receipt of novel influenza strain at the MSPHL

## REFERENCES

- Missouri State Public Health laboratory web site:  
<http://www.dhss.mo.gov/Lab/index.html>
- Health Update: Updated Interim Guidance for Lab Testing of Persons with Suspected Infection with Avian Influenza A (H5N1) Virus; 6-20-2006  
[http://www.dhss.mo.gov/BT\\_Response/HUDUpdatedH5N1TestingGuidance06-19-06.pdf](http://www.dhss.mo.gov/BT_Response/HUDUpdatedH5N1TestingGuidance06-19-06.pdf)
- U.S. Department of Health & Human Services Pandemic Influenza Plan  
<http://www.hhs.gov/pandemicflu/plan/pdf/S02.pdf>
- Missouri Department of Health and Senior Services Pandemic Influenza Plan  
<http://www.dhss.mo.gov/PandemicPlan/PanFluPlan.pdf>
- MMWR February 3, 2006 / 55(Early Release);1: New Laboratory Assay for Diagnostic Testing of Avian Influenza A/H5 (Asian Lineage)  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm55e203a1.htm>
- New York City Department of Health and Mental Hygiene Pandemic Influenza Preparedness and Response Plan; pp 95-101  
[www.nyc.gov/html/doh/downloads/pdf/cd/cd-panflu-plan.pdf](http://www.nyc.gov/html/doh/downloads/pdf/cd/cd-panflu-plan.pdf)
- CDC Pandemic Influenza website: <http://www.pandemicflu.gov/>
- WHO Influenza Network website:  
<http://www.who.int/csr/disease/influenza/influenzanetwork/en/index.html>
- CDC Laboratory Network for Biological Terrorism (LRN) website:  
<http://www.bt.cdc.gov/lrn/>

## Pandemic Influenza Plan – Mental Health

---

For more information, contact chair Melissa Brown at [Melissa.Brown@dhss.mo.gov](mailto:Melissa.Brown@dhss.mo.gov) or 573.526.4768.

### Overview

The Mental Health Response section addresses the psychological aspects of an influenza pandemic. It takes into consideration the various group/individual situations surrounding the intervention of mental health professionals during a crisis situation. The mental health response will address the needs of healthcare workers, emergency personnel, their families, and the general public.

### Best Practices

Due to developments in medical science and public health practice over the last century, the US has increasingly reduced the number and scope of disease outbreaks. However, the mental health literature in this area is nearly non-existent due to little experience with disease outbreaks and the difficulties in conducting research to ascertain the mental health needs of individuals. Therefore, planning for mental health capacity and response in a pandemic flu outbreak requires reliance on:

- Extrapolation of assumptions and interventions based on natural disasters and disease outbreaks in other parts of the world, often much smaller in scope than an epidemic or pandemic; and
- Expert recommendations and consensus regarding appropriate mental health supports and intervention.

The recent Severe Acute Respiratory Syndrome (SARS) outbreaks in Asia and Canada as well as the thoughtful conceptualizations of mental health experts with experience in trauma-informed services constitute the best guideposts for pandemic flu planning.

When the SARS experiences are examined in relationship to mental health needs, they provide some informative assumptions that may inform pandemic flu planning efforts.<sup>1</sup>

- More than 40% of the general public in affected communities experienced increased stress in family and work settings during the outbreak while 16% showed signs of traumatic stress levels.
- Many, if not most, people felt helpless, apprehensive and horrified by the outbreak.
- 30% of one survey sample thought they would contract SARS while only 25% felt they would survive if they caught the disease despite an actual survival rate of 80% or greater. This level of perceived risk can be predictive of widespread panic if the scope of the outbreak or its lethality had been greater.
- People were diligent about taking appropriate precautions to prevent person-to-person spread. However, adoption of precautions occurred differentially based on anxiety levels and perceived risks, indicating the importance of understanding stress and anxiety levels by public health authorities.

---

<sup>1</sup> **Source:** Center for the Study of Traumatic Stress, USUHS, “*Mental Health and Behavioral Guidelines for Response to a Pandemic Flu Outbreak*”, a 2006 paper posted at [www.usuhs.mil/csts/](http://www.usuhs.mil/csts/)

- Front line health care workers who treated outbreak victims were particularly vulnerable to negative mental health affects.
  - Nurses treating SARS patients showed high levels of stress, with about 11% at traumatic levels.
  - Mental health sequelae included depression, anxiety, hostility, and somatization symptoms.

In response to the anticipated disruption and loss associated with a pandemic, the Center for the Study of Traumatic Stress (CSTS) highlights the importance of special consideration to:

- The role of risk communication;
- Psychological, emotional and behavioral responses to public education, public health surveillance and early detection efforts;
- Psychological responses to community containment strategies such as quarantine, restrictions on movement and closures for work, school and other public venues;
- Health care surge and continuity; and
- Public responses to mass prophylaxis strategies.

Although planning must be premised on assumptions of success, the mental health and behavioral implications of failure must also be anticipated and considered as part of planning. Phase-specific planning issues are highlighted in the chart below.

Phase 1, 2, 3	Phase 4, 5	Phase 6 and Recovery
<ul style="list-style-type: none"> <li>○ Public education</li> <li>○ Leadership preparation</li> <li>○ Sustained preparedness</li> <li>○ Leadership functions</li> </ul>	<ul style="list-style-type: none"> <li>○ Communication</li> <li>○ Tipping points</li> <li>○ Surges in health care demands</li> </ul>	<ul style="list-style-type: none"> <li>○ Community structure</li> <li>○ Stigma &amp; discrimination</li> <li>○ Management of fatalities</li> </ul>

The Uniformed Services University of the Health Services (USUHS) recommends the following principles for mental health intervention planning for pandemic outbreaks.

1. Incorporate efforts to increase health protective behaviors and response behaviors.
2. Use sound risk communication strategies to increase credibility.
3. Communicate measures to increase individual and family safety.
4. Conduct extensive public education campaigns.
5. Facilitate community-directed activities that promote social cohesion.
6. Utilize evidence-informed psychological first aid strategies.
7. Care for first responders to maintain effective functioning and to help them stay in the workplace.
8. Conduct mental health surveillance to inform response efforts and to address long-term recovery needs.

In addition to the leadership provided by the USUHS, the Centers for Disease Control and Prevention (CDC) and the National Center for Post-Traumatic Stress Disorders (NCPTSD) have examined mental health issues in planning for pandemic influenza. In May 2006, Dr. Dori Reissman of the CDC and Dr. Patricia Watson with NCPTSD presented their findings and have provided some preliminary guidance about best practice recommendations.<sup>2</sup>

<sup>2</sup> Source documents located at <http://spiritofrecoverysummit.com/presentations.htm#tues>

Three (3) general goals and associated activities have been identified for the public health and mental health fields to appropriately address the potential emotional and behavioral issues that would likely emerge in a pandemic event and are summarized in the chart below.

Measures to shape adaptive behaviors	Measures to reduce social and emotional deterioration and improve functioning	Measures to support key personnel in critical infrastructure functions
<ul style="list-style-type: none"> <li>○ Guidance that maximizes public trust and effective communication strategies</li> <li>○ Guidance to maximize adaptive behavior change</li> </ul>	<ul style="list-style-type: none"> <li>○ Public information, guidance and support that:</li> <li>○ Increases hope</li> <li>○ Enhances safety</li> <li>○ Promotes calm</li> <li>○ Encourages connectedness</li> <li>○ Improves personal and community efficacy</li> </ul>	<ul style="list-style-type: none"> <li>○ Maximizing performance and resilience</li> <li>○ Managing grief, exhaustion, anger, fear, family &amp; self-care issues and resolving ethical issues</li> </ul>

Further, they define the role of public mental health authorities in a pandemic to encompass responsibility for:

- ❖ Reducing social and emotional deterioration;
- ❖ Improving functioning; and
- ❖ Facilitating coping and recovery.

Toward those ends, the following chart summarizes both public health and individual interventive strategies to effectively support communities and individuals coping with a pandemic disease outbreak.

	PUBLIC HEALTH	INDIVIDUAL
<b>PROMOTING SENSE OF SAFETY</b>	<ul style="list-style-type: none"> <li>▪ Establish which environments are safe &amp; make clear they are safe</li> <li>▪ Educate people how to make their own surroundings safe</li> <li>▪ Provide an accurate, organized public voice to help circumscribe threat</li> <li>▪ Inform the media to convey safety &amp; resilience rather than imminent threat</li> <li>▪ Encourage individuals to limit media exposure <ul style="list-style-type: none"> <li>○ Recommend limiting amount of time talking about trauma if anxious and depressed</li> <li>○ Educate parents regarding limiting and monitoring news exposure in children</li> </ul> </li> </ul>	<p><u>Goals</u></p> <ul style="list-style-type: none"> <li>▪ Make choices between safe and unsafe activities, environments</li> <li>▪ Increase sense of safety</li> <li>▪ Incorporate skills for “new normal” to assist in maintaining changes in behavior and routine that are “safer”</li> </ul> <p><u>Techniques</u></p> <ul style="list-style-type: none"> <li>▪ Imaginal exposure and real-world, in-vivo exposure</li> <li>▪ Techniques to help people keep their minds based in reality</li> <li>▪ Understanding discrimination practices in the face of trauma and loss triggers.</li> </ul>
<b>PROMOTE CALM</b>	<ul style="list-style-type: none"> <li>▪ Help people directly solve concerns</li> <li>▪ Give information about safety of family and friends and their status in terms of risk</li> <li>▪ Large-scale community outreach &amp; psycho-education about the following topics <ul style="list-style-type: none"> <li>○ Post-trauma reactions that are understandable and expectable</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Therapeutic grounding (for those re-experiencing symptoms) such as “you are in a safe environment now.”</li> <li>▪ Breathing retraining</li> <li>▪ Deep muscle relaxation</li> <li>▪ Understanding stress reactions to reduce anxiety associated with reactions</li> </ul>



	PUBLIC HEALTH	INDIVIDUAL
	<ul style="list-style-type: none"> <li>○ Anxiety management techniques for common post-trauma problems</li> <li>○ Signs of severe dysfunction</li> <li>○ Limiting media exposure for those with mid-level problems of anxiety</li> <li>○ Receiving brief news reports from a friend or family member, for those with more severe emotionality</li> </ul>	<ul style="list-style-type: none"> <li>▪ Stress management training</li> <li>▪ Cognitive reframing – changing focus, sense of time, thoughts and beliefs to change reactions</li> </ul>
PROMOTE SELF AND COMMUNITY EFFICACY	<ul style="list-style-type: none"> <li>▪ Provide people with outside resources</li> <li>▪ Create a way to manage and orchestrate people's resources</li> <li>▪ As much as possible, involve victims in decision-making regarding policy</li> <li>▪ Promote activities that are thought of and implemented by the community such as               <ul style="list-style-type: none"> <li>○ Religious activities</li> <li>○ Meetings</li> <li>○ Rallies</li> <li>○ Collaboration with local healers</li> <li>○ The use of collective healing and mourning rituals</li> </ul> </li> <li>▪ Foster competent communities that:               <ul style="list-style-type: none"> <li>○ Encourage the well-being of citizens</li> <li>○ Provide safety</li> <li>○ Make material resources available for rebuilding and restoring order</li> <li>○ Share hope for the future</li> <li>○ Support families who are often the main provider of mental health care after disasters</li> </ul> </li> <li>▪ Foster the perception that others are available to provide support, which:               <ul style="list-style-type: none"> <li>○ Mitigates the perception of vulnerability</li> <li>○ Emboldens individuals to engage in adaptive activities they might otherwise see as risky</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Remind individuals of their strengths and skills</li> <li>▪ Encourage active coping</li> <li>▪ Enhance sense of control over traumatic stressors</li> <li>▪ Help to readjust expectations and goals</li> <li>▪ Teach individuals to problem-solve and set achievable goals</li> </ul>
PROMOTE SOCIAL CONNECTEDNESS	<ul style="list-style-type: none"> <li>▪ Identify those who:               <ul style="list-style-type: none"> <li>○ Lack strong support</li> <li>○ Are likely to be more socially isolated</li> <li>○ Have a support system providing undermining messages</li> </ul> </li> <li>▪ Help individuals to identify and link with loved ones</li> <li>▪ Increase the quantity, quality and frequency of supportive transactions</li> <li>▪ Address potential negative social influences (<i>i.e., mistrust, in-group/out-group dynamics, impatience with recovery, exhaustion, etc.</i>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Train people how to access support</li> <li>▪ Provide formalized support</li> <li>▪ Address discordance among family members</li> </ul>

	PUBLIC HEALTH	INDIVIDUAL
INSTILL HOPE	<ul style="list-style-type: none"> <li>▪ Provide services to individuals to help them get their lives back in order</li> <li>▪ Develop advocacy programs to aid victims</li> <li>▪ Support rebuilding of local economies</li> <li>▪ Media, schools, and universities, and natural community leaders (e.g., churches, community centers) should help people to:               <ul style="list-style-type: none"> <li>○ Link to resources</li> <li>○ Share experiences and hope</li> <li>○ Memorialize and make meaning</li> <li>○ Accept that life and everything around them may have changed</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Identify, amplify and concentrate on building strengths</li> <li>▪ Normalize responses</li> <li>▪ Indicate that most people recover spontaneously</li> <li>▪ Highlight already exhibited strengths and benefit-finding</li> <li>▪ Manage extreme avoidance behavior</li> <li>▪ Control self-defeating self statements</li> <li>▪ Encourage positive coping behaviors</li> <li>▪ Encourage appreciation and recognition for family “heroes”</li> <li>▪ Encourage short &amp; long term goal-setting</li> </ul>

This conceptual framework provides a helpful roadmap for the oversight, management and coordination of public mental health efforts in a pandemic flu or similar community-wide outbreak.

It should be noted that a majority of the experts highly recommend that development of emotional resilience provides an important foundation that helps most people endure adverse circumstances and promotes recovery. As a preventive effort, during the preparedness and pre-pandemic phases, leaders should utilize the time to build resilience for all Americans with targeted focus on those that would be at greatest risk in a pandemic due to their work responsibilities or other characteristics. Drawing from the literature and evidence base related to risk and protective factors in mental health, it is clear that certain skills and belief patterns are associated with better long-term emotional function and recovery. The American Psychological Association has initiated efforts to improve mental health indicators by addressing emotional resilience and has established a resilience project in recent years. Their general recommendations for building personal resilience are summarized in the following steps:<sup>3</sup>

1. *Make connections with close family members, friends, civic groups, faith-based organizations, or other local groups.*
2. *Try to look beyond the present to how future circumstances may be a little better, and note any subtle ways in which one might already feel somewhat better in dealing with difficult situations.*
3. *Accept circumstances that cannot be changed and focus on circumstances that one can alter.*
4. *Develop realistic goals and regularly take action that moves one toward goals.*
5. *Act on adverse situations by taking decisive action, rather than detaching from problems and stresses while wishing they will go away.*
6. *Look for opportunities to learn something about oneself, and to find self-growth in some respect as a result of one’s struggle with loss.*
7. *Develop confidence in one’s ability to solve problems and trust one’s instincts.*
8. *Consider the stressful situation in a broader context and keeping a longer term perspective.*
9. *Maintain an optimistic outlook and try to visualize what one wants, rather than worry about what one fears.*

<sup>3</sup> From the American Psychological Association on Building Resilience at [www.apa.org](http://www.apa.org)

10. *Pay attention to one's own needs and feelings, engaging in enjoyable relaxing activities and exercising regularly.*
11. *Utilize preferred ways of coping, such as writing about thoughts and feelings, meditation and spiritual practices, and utilizing sources of personal strength which have been successful in past experiences.*
12. *Maintain flexibility and balance in life by:*
  - a. *Allowing oneself to experience strong emotions, while also realizing at times it is necessary to avoid experiencing them in order to continue functioning*
  - b. *Stepping forward to take action to meet the demands of daily living and also stepping back to rest and re-energize*
  - c. *Spending time with loved ones to gain support and encouragement and also to nurture oneself*
  - d. *Relying on others, while also relying on oneself*

Incorporating personal resilience into pandemic preparedness and response may best be carried out by identifying at-risk groups and individuals to promote development of their own plans as part of preparedness efforts. Personal resilience plans should be designed to:

- Monitor and limit unnecessary exposure
- Monitor general and personal risk factors
  - Coping style
  - Social connectivity
  - Self-awareness of stressors and need to seek assistance
- Re-establish work and life balance
- Advocate for change based on lessons learned

In conclusion, based on review of the literature and expert consensus, it is clear there is a place for mental health in planning for a pandemic event with recognition that:

- There are evidence-informed interventions for promoting recovery.
- Multiple modalities and creative adaptations will be necessary for interventions.
- Responsibility will fall on all members of the community to promote recovery.
- Interventions must be tailored for the phase and severity of the pandemic.

Using the frameworks outlined by content experts, Missouri's plan for mental health efforts in a pandemic should incorporate these approaches and principles.

## **Challenges**

An influenza pandemic is likely to be associated with much more illness and many more deaths than seasonal flu outbreaks, and will cause considerable psychosocial and economic disruption. Addressing mental health needs will help the public cope in a pandemic, supporting the effective implementation of medical and non-medical public health measures.

## **I. Interpandemic Periods (World Health Organization Phases 1 And 2)**

### **Phase-Specific Mental Health Planning Principles**

During the interpandemic period the activities of mental health providers are focused on addressing the mental health issues associated with seasonal influenza as well as planning for those that may be generated by a pandemic.

Collaborative efforts with community- and faith-based organizations help ensure that mental health planning, preparedness, and response to a pandemic is culturally appropriate. Throughout all phases of the pandemic, mental health providers will coordinate mental health planning and response activities with other government and non-government agencies, including:

- ❑ Missouri Department of Mental Health (DMH)
- ❑ Missouri Department of Health and Senior Services (DHSS)
- ❑ Missouri Department of Education and Secondary Education (DESE)
- ❑ Missouri Department of Social Services (DSS)
- ❑ Missouri Department of Corrections (DoC)
- ❑ Licensed psychiatric facilities
- ❑ Federally Qualified Health Centers through Missouri Primary Care Association
- ❑ Local Public Health Agencies (LPHA)
- ❑ DHSS Hospital EMSsystem
- ❑ Missouri Hospital Association (MHA)
- ❑ Professional Registration
- ❑ Professional Education Programs
- ❑ Professional Membership Groups

### **Potential Phase-Specific Activities**

Develop public education tools and material

- ❑ In collaboration with public information, identify and develop pandemic influenza-specific educational tools and materials regarding the signs of distress, traumatic grief, coping strategies, and building and sustaining personal and community resilience
- ❑ Identify and list behavior and psychological support resources.

### **Increase awareness of potential mental health implications of an influenza pandemic**

- ❑ Prepare and disseminate information about psychological reactions to public health emergencies and recommendations for positive coping strategies
- ❑ Maintain an updated website containing information about pandemic influenza-related mental health issues.

### **Support mental health disaster training**

Training regarding mental health skills and competencies will be a challenge due to a number of barriers and challenges including:

- ❑ Denial of the possibility and seriousness of a pandemic's effects on society;
- ❑ Cost and investment issues for the mental health system, health care system including hospital and primary care settings, employers and government;
- ❑ Stigma issues associated with mental health and well-being;

- ❑ Assumptions that preparedness and response will be an individual responsibility rather than a collective responsibility; and
  - ❑ Hopelessness that anyone can prepare effectively for a large-scale disease outbreak.
- Consequently, any training strategy will need to consider ways to motivate stakeholders to invest in preparedness that is afforded by training as well as the cost-benefit of training at different phases of an event.

The following content areas have been preliminarily identified for the interpandemic period:

*Target Audience: Health Care Workers*

Training Content:

- ❑ Human behavior & reactions to public health emergencies and containment measures
- ❑ Planning for surges in demand in high emotion circumstances
- ❑ Psychological first aid skills (including trauma-informed assessments) with attention to grief and bereavement issues
- ❑ Role of psycho-education and resource materials to share
- ❑ Referral
- ❑ Stress management and self-care

*Target Audience: Mental Health Workers (public and private sector) and Hotline Workers*

Training Content:

- ❑ Human behavior and reactions to public health emergencies and containment measures
- ❑ Psychological first aid skills (including trauma-informed assessments) with attention to grief and bereavement issues
- ❑ Mental health interventive strategies and best practices in pandemic as described in previous section
- ❑ Self-care

*Target Audience: Public Health*

Training Content:

- ❑ Human behavior and reactions to public health emergencies and containment measures as well as grief and bereavement issues
- ❑ Risk communication principles and skills especially related to “tipping points” that might lead to social disruption or unrest
- ❑ Systemic interventions to promote safety, calm, confidence, connectedness and hope consistent with best practices in previous section
- ❑ Stress management and self-care

*Target Audience: Emergency Responders*

Training Content:

- ❑ Human behavior and reactions to public health emergencies and containment measures
- ❑ Psychological first aid skills
- ❑ Fact sheets to disseminate regarding stress, grief, coping in public health emergency
- ❑ Referral strategies and contact information
- ❑ Stress management and self-care

*Target Audience: Coroners, Medical Examiners and Funeral Directors*

Training Content:

- ❑ Human behavior and reactions to public health emergencies with large-scale loss of life

- ❑ Risk communication principles and skills
- ❑ Systemic and individualized interventions to promote safety, calm, confidence, connectedness and hope in the context of traumatic grief and loss
- ❑ Referral indicators, strategies and agreements
- ❑ Need to accommodate religious and cultural preferences to extent possible and advance planning with community
- ❑ Stress management and self-care

*Target Audience: General Public*

Training Content:

- ❑ Public education related to:
  - Resilience
  - Familiarity with behaviors that promote safety in contagious disease
  - Preparedness and planning for social distancing and containment measures such as shelter-in-place, quarantine and school closures

*Target Audience: Special Populations – including culturally diverse groups*

Training Content:

- ❑ Public education targeted to functional needs related to:
  - Resilience
  - Familiarity with behaviors that promote safety in contagious disease
  - Preparedness & planning for social distancing and containment measures such as shelter-in-place, quarantine and school closures

*Target Audience: Schools*

Training Content:

- ❑ What to expect in terms of human behavior and reactions to disasters and public health emergencies
- ❑ Resilience promotion for students and school personnel including self-care skills such as stress management
- ❑ Fact sheet resources for children and caregivers to educate regarding stress reactions, self-care, etc. consistent with guidance described in best practices.
- ❑ Mental health referral agreements
- ❑ School preparedness flu planning guidance
- ❑ Plans for continuity of education
- ❑ Strategies for maintaining friendships while practicing social distancing

*Target Audience: Faith-Based Leaders and Communities*

Training Content:

- ❑ What to expect in terms of human behavior and reactions to disasters and public health emergencies
- ❑ Psychological first aid
  - General principles
  - Normalizing reactions and outreach
  - Indicators for referral to mental health workers and referral “How to’s”
  - Spiritual issues
- ❑ Unique role of faith communities in mass fatality scenario
- ❑ For specific community, identify special needs groups

- ❑ Self-care skills
  - Stress management
  - Buddy systems
  - Resources for assistance

*Target Audience: Civic and Service Organizations – including volunteers, care-givers and natural helpers*

Training Content:

- ❑ What to expect in terms of human behavior and reactions to disasters and public health emergencies
- ❑ Psychological first aid
  - General principles
  - Normalizing reactions and outreach
  - Communication and engagement skills for volunteers including tips about what to say or not say to pandemic survivors
  - Indicators for referral to mental health workers and referral “how to’s”
- ❑ Volunteer role in assuring only accurate and consistent information is communicated
- ❑ For specific community where volunteer will respond, identify special needs groups
- ❑ Self-care skills
  - Stress management
    - Relaxation
    - Recreation
    - Self-talk
    - Journaling
  - Buddy systems and supervisory support
  - Resources for assistance (Employee Assistance Program (EAP), crisis counseling, etc.)

*Target Audience: Large Employers and Human Resource Professionals*

Training Content:

- ❑ What to expect in terms of human behavior and reactions to disasters and public health emergencies
- ❑ Resilience promotion including self-care skills such as stress management
- ❑ Mental health referral and EAP agreements
- ❑ Workplace preparedness
- ❑ Human resource policies regarding sick leave, family leave, etc.

*Target Audience: Government Leaders, Public Officials and Public Information Officers*

Training Content:

- ❑ Human behavior and reactions to public health emergencies and containment measures
- ❑ Risk communication principles and skills
- ❑ Systemic interventions to promote safety, calm, confidence, connectedness and hope consistent with best practices in previous section
- ❑ Stress management and self-care

## **Partner with Faith-Based Organizations**

The involvement of faith based partners in reaching out to their congregations and communities during a pandemic flu event will be crucial to promote well-being and spiritual, social and emotional strength for Missouri's citizens.

DMH, in recognition of the substantial role of the faith-based organizations in outreach, has developed the curriculum: *Mental Health and Disasters: A Basic Approach for Faith Based Ministries* to train congregational leadership about how to plan for their congregations, and how to meet the emotional needs of their congregations and communities in the aftermath of a natural or technological disaster or public health emergency.

Descriptions of the roles and partnering strategies that will be beneficial for faith-based ministries to consider in supporting the mental health needs of their congregational and community families in a public health emergency follow in each phase-specific section.

The following content areas have been preliminarily identified for the interpandemic period.

- Plan for congregation, staff and community
  - Use CDC checklist to plan for congregation
  - Plan for your own family
  - Learn about the emotional and physical impact that a pandemic flu may have on your congregation through classes on psychological first aid and through websites such as CDC, DHSS, CSTS, etc.
  - Learn risk communication and how to convey important, brief messages to congregational members
  - Decide how to communicate your congregation's plans and pandemic flu information to congregants
  - Set up policies to follow during a pandemic, i.e. staff leave, etc.
  - Evaluate access to mental health and social services for staff, members and community including EAP if available
  - Plan for staff absences due to illness, how staff will be supported and who will support the congregation in their absence
  - Consider directing outreach efforts to services most needed during an emergency such as mental and spiritual health and social services
  - Utilize call down lists to check on congregational members
  - Develop "Shepherding Families/Individuals" that are trained to call a certain number of congregants, (especially home-bound, elderly and special needs) several times a month to check on well-being, food, heat/air conditioning, etc. during any event including pandemics. Consider specific pandemic strategies such as increasing number of calls, having back-up callers, etc.
  - If the congregation is unable to meet for services, consider how services may be telecast to meet the congregation's spiritual needs
  - Introduce regular emails, letters, etc. in order to support people
  - Plan for physical support of congregants including volunteer delivery of medications, groceries and meals
  - Identify persons within your congregation who have special needs and determine with them how to meet their needs during a public health emergency
  - If public gatherings must be suspended due to an outbreak, consider how to support congregants who were planning weddings, anniversary celebrations, etc.



- Consider how to memorialize people and support family members if funerals are postponed
- Plan for yourself – remember that self-care is critical to your ability to care for your family and congregation. Develop a support system, private times and relaxation times
- Develop partnerships
  - Call the Local Public Health Agency (LPHA) to see if there are groups / congregations meeting to plan for a public health emergency. Become part of those groups.
  - Discuss and plan with Ecumenical groups such as the Ministerial Alliance.
  - Consider developing a Local Emergency Pastoral Care Committee
  - Partner with other faith-based and community agencies such as mental health, health and social service agencies and voluntary agencies to plan for how to meet the physical, emotional, social and spiritual needs of your community in a pandemic event.
  - Develop planning with other congregations and organizations of your faith to provide mutual support, staffing, etc. in a pandemic
  - Identify other resources available through your congregational affiliation: counseling centers, parish nurses, etc.
  - Develop memos or letters of understanding outlining the agreed upon activities and outreach between partnering faith-based organizations/congregations.
  - Understand the roles of federal, state, and local public health agencies as well as emergency responders and what to expect during an emergency in terms of support for your congregation/community.
  - Plan with partners such as other congregations, funeral homes, and health care providers about how to handle mass fatalities, memorials, etc. and how best to communicate information to your congregations.
  - Plan with specific cultural groups in your area, including those that are faith based, such as the African American Task Force of the Missouri Department of Mental Health and the Committed Caring Faith Communities organization
  - If you are a member of a faith that has specific cultural practices during grief periods or whose members may limit medical interventions due to their beliefs, work with public health authorities and others in advance of an emergency to gain understanding and to plan for appropriate responses and diminish inappropriate responses. Also plan with your congregations the alternate safe approaches that will be used in a public health emergency.
  - As a Partnership, develop educational materials and strategies to decrease stigma for people who have been through illness and are returning to work, etc. as others may fear getting ill from them.
  - If you partner with your local hospital, law enforcement, etc. as a chaplain, plan for how your response may change in a pandemic event, for example:
    - Phone calls instead of hospital visits
    - Changes in provisions for communion, last rites, etc.
    - Support to staff who have ill family members or who have lost family or co-workers

- Support to law enforcement and mortuary staff who may have to respond to family homes where death has occurred or to street deaths of homeless victims

## **Mental Health Interventions**

The following content areas have been preliminarily identified for the interpandemic period:

- Goals of intervention
  - Preparedness
  - Resilience
    - Conveyance of safety and resilience factors rather than imminent threat
  - Mitigation of risk factors including
    - Health protective and response behaviors
    - Development of risk communications strategies
    - Activities to promote community social cohesion
- Role of all helpers
  - Planning
  - Public education
  - Communication
  - Workforce preparedness and training
  - Resource development
  - Community development
- Community Mental Health Role
  - Mental Health response planning and preparation at local level
    - Collaborate at local level
    - Inform and influence policy
    - Set structures for assistance
      - Develop surge capacity
      - Assess usable technologies, i.e. phone, telecommunication, etc.
      - Integrate substance abuse counseling
      - With diverse communities
    - Advocacy for people with special needs
  - Workforce Development
    - Leadership preparation and functions
    - Promote awareness and increase capacity for:
      - Personal preparedness
      - Work-related preparedness, i.e. human resource policies
      - Recruitment of indigenous, bilingual
    - Train responders in evidence-based mental health response skills consistent with assigned responsibilities
      - Mental health professionals
      - Crisis counselors
      - Outreach workers
      - Substance abuse counselors
      - Interpreters
      - Health workforce
      - Mortuary workforce

- Natural helpers
  - Promote resilience building, stress management and self-care
- Public Education
  - Preparedness campaigns and materials that address safety and resilience rather than imminent threat
  - Mental health promotion and prevention efforts to
    - Build emotional resilience
    - Increase protective factors
    - Target prevention efforts to at-risk groups, including special populations
    - Integrate substance abuse and relapse prevention efforts
  - Cultivate relationships with and educate media
- Community Development
  - Partner to address needs of disability and other at-risk groups
  - Develop resources and partnerships with diverse cultures within communities
- Public Mental Health Authority
  - Mental Health Response Planning and Preparation at state level
    - Collaborate at state level
    - Interagency collaboration to develop guidance to:
      - Shape adaptive behaviors
      - Reduce social and emotional deterioration and improve functioning
      - Support key personnel in critical infrastructure functions
      - Facilitate coping and recovery
    - Policy development including human resources and leadership preparation and functions
    - Infrastructure support for rapid assistance
      - Surge capacity including telephonic and telecommunication
      - Integrate substance abuse
      - With diverse communities
    - Plan and develop infrastructure for:
      - Implementation of Federal Emergency Management Agency (FEMA) Crisis Counseling Program (CCP) if available or other fiscal resources
        - Financial models
        - CCP templates
        - Technical assistance for services and billing
        - Administrative support
      - Mutual aid strategies
        - Among community mental health centers
        - With American Red Cross, other Volunteer Organizations Active in Disaster (VOAD) agencies
  - Workforce development
    - Continuity planning
    - Training for public health, other health care providers such as hospitals and primary care, mortuary workers, mental health, etc.

- Exercises
  - Resource development
    - Funds
    - Grants
    - Technical
  - Regulatory Role
    - Competency-based standards for workforce
      - Competencies, including self-care
        - Cultural competencies and use of interpreters
      - Agency planning and preparedness licensure and certification standards
  - Advocacy with priority given to:
    - DMH clients (adults and children with psychiatric, mental retardation, developmental disability, substance abuse needs)
    - School children
    - Individuals with diverse cultural backgrounds and language abilities
    - Other Special Needs Populations (SNP), as resources permit
- Key Populations
  - General public
  - DMH clients
  - Special Needs Populations
    - Children
    - Elderly
    - Persons with disabilities
    - Homeless
    - Diverse cultures
      - Language other than English
      - People who are not US citizens
    - Health workforce
    - Mental health workforce
    - Mortuary care workforce

### **Supporting Families Coping with Death**

- Coping with large numbers of deaths represents a key challenge in planning for an influenza pandemic. Please consult the Mortuary Affairs Annex for further guidance regarding supporting families coping with death.

## **II. Pandemic Alert Periods (World Health Organization (WHO) phases 3, 4, and 5) Phase-Specific Mental Health Planning Principles and Assumptions**

### **Support Mental Health Disaster Training**

The following content areas have been preliminarily identified for the pandemic alert periods:

*Target Audience: Health Care Workers*

Training Content:

- ❑ Checklist of applicable strategies to manage surge demand and mitigate against panic and disruption including separate quiet areas for managing highly distressed individuals and to minimize further exposure to trauma
- ❑ Psychological first aid assessments and skills checklists including guidelines for death notifications
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Referral inventory of phone numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care

*Target Audience: Mental Health Workers – including public and private sector*

Training Content:

- ❑ Consultation checklists to advise organizations re: systemic level interventions to promote safety, calm, confidence, connectedness and hope consistent with best practices in previous section
- ❑ Use of psychological first aid skills (including trauma-informed assessments) tailored to the pandemic
- ❑ Mental health intervention strategies and best practices in pandemic as described in previous section such as cognitive behavior therapy, exposure management and desensitization techniques, etc.
  - Telephone or telemedicine tips in addition to face to face
  - Importance of addressing traumatic grief and loss
  - Prepared fact sheets for rapid production
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care

*Target Audience: Public Health*

Training Content

- ❑ Human behavior and reactions to public health emergencies and containment measures
- ❑ Risk communications checklists and toolkits
- ❑ Prepared scripts and public education materials to instruct the public from both physical and emotional perspectives how to promote safety, calm, confidence, connectedness and hope consistent with best practices in previous section
- ❑ Dissemination of public education materials that integrate resilience and mental health strategies including trusted websites addresses in order to obtain more information
- ❑ Activation of pre-planned EAP strategies resource lines for public health workers facing increased demand
- ❑ Mental health indicators to monitor that are predictive of public unrest or panic

*Target Audience: Emergency Responders*

Training Content:

- ❑ Checklist of psychological first aid “to do” activities tailored to emergency responders
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Referral inventory of phone numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care
- ❑ Activation of pre-planned EAP strategies resource lines to handle increased demand

*Target Audience: General Public*

Training Content:

- ❑ Public education that promotes:
  - Safety
  - Calm
  - Self-efficiency
  - Connectedness and social cohesion
  - Hope

*Target Audience: Special Populations*

Training Content:

- ❑ Public education targeted to functional needs related to:
  - Safety
  - Calm
  - Self-efficiency
  - Connectedness and social cohesion
  - Hope

*Target Audience: Civic and Service Organizations, including volunteers, caregivers and natural helpers*

Training Content:

- ❑ Psychological first aid tip sheets
  - General principles
  - Normalizing reactions and outreach
  - Communication and engagement skills for volunteers including what to say or not say to pandemic survivors
  - Signs for referral to mental health workers and referral “how to’s”
- ❑ Rumor control hotline to report or confirm rumors
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Referral inventory of phone numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care as well as a small book to use for journaling
- ❑ Activation of pre-planned EAP resource lines to handle increased demand

*Target Audience: Large Employers and Human Resource Professionals*

Training Content:

- ❑ Checklists for changes to workplace environment and policies that promote:
  - Safety
  - Calm
  - Self-efficacy
  - Connectedness and social cohesion
  - Hope
- ❑ Rumor control hotline to report or confirm rumors
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care as well as a small book to use journaling
- ❑ Activation of pre-planned EAP resource lines to handle increased demand

*Target Audience: Government Leaders, Public Officials and Public Information Officers*

Training Content:

- ❑ Risk communication checklists and toolkits
- ❑ Prepared scripts and public education materials to instruct the public from both physical and emotional perspective how to promote safety, calm, confidence, connectedness and hope consistent with best practices in previous section
- ❑ Checklist of tipping points that indicate potential for social unrest or panic

*Target Audience: Coroners, Medical Examiners and Funeral Directors*

Training Content:

- ❑ Checklist of psychological first aid information tailored to mass fatalities
- ❑ Mental health guidelines for death notifications
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Referral inventory of phone numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care
- ❑ Activation of pre-planned EAP resource lines to handle increased demand

*Target Audience: Schools*

Training Content:

- ❑ Checklist of school continuity activities that incorporate strategies to promote:
  - Safety
  - Calm
  - Self-efficiency
  - Connectedness and social cohesion
  - Hope
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Referral inventory of phone numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through available in paper and electronically
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care
- ❑ Activation of pre-planned resource lines for handling increased stress of school personnel

*Target Audience: Faith-Based Leaders and Communities*

Training Content

- ❑ Checklists of faith-based activities, rituals and traditions that promote:
  - Safety
  - Calm
  - Self-efficiency
  - Connectedness and social cohesion
  - Hope
- ❑ Psychological first aid tip sheets that are designed for mass fatality scenarios
  - General principles
  - Normalizing reactions and outreach
  - Address grief and bereavement
  - Communication and engagement skills for volunteers what to say or not say to disaster survivors

- Indicators for referral to mental health workers and referral “how to’s”
- ❑ Rumor control hotline to report or confirm rumors
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Referral inventory of numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care as well as a small book to use for journaling

*Target Audience: Human Service Agencies Active in Disaster*

Training Content:

- ❑ Psychological first aid tip sheets that are designed for mass fatality scenarios
  - General principles
  - Normalizing reactions and outreach
  - Address grief and bereavement
  - Communication and engagement skills for volunteers including what to say or not say to disaster survivors
  - Indicators for referral to mental health workers and referral “how to’s”
- ❑ Rumor control hotline to report or confirm rumors
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Referral inventory of numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care as well as a small book to use for journaling.

### **Partner with Faith-Based Organizations**

The following content areas have been preliminarily identified for the pandemic alert period.

- ❑ Communication
  - Communicate congregational plans and early pandemic information to congregation, including resilience building and coping strategies
  - Activate telephone trees to communicate information about ill members, needs, etc.
  - Implement “Shepherding Ministry” where families/individuals keep contact on a regular basis with the sick, shut-ins, persons with special needs, elderly, etc.
  - Publicize pastoral care
  - Impart information about the congregation’s plans for services, special events, etc.
  - Convey plans and implement strategies for web based services, email check-ups and telephone support.
  - Plan for regular communication with faith-based and community partners for planning and support
- ❑ Surges in health care demand
  - Develop ways to support members and staff in the pandemic response if hospitals are overwhelmed
    - Volunteer deliveries of essential goods
    - Paying bills for ill persons
    - Child or elder care



- Pet care
  - Implement decision making regarding transportation to health care facilities, exposure, etc. for congregational members
- Partnerships
  - Use partners as source of mutual emotional support by phone, generating new ideas for response, etc.
  - Implement plans made by partner agencies and memos/letters of understanding to provide back up staff support, web based services from other locations, etc.

## Mental Health Interventions

The following content areas have been preliminarily identified for the pandemic alert period:

- Goals of intervention
  - Safety and survival
  - Meet basic needs
  - Effective communication
  - Effective risk communication incorporation of skills for the “new normal” including safe behavioral practices and routines
- Roles of helpers
  - Protection
  - Reduction of stress and arousal
  - Reassurance
- Community Mental Health role
  - Basic Needs
    - Establish safety, security and survival
    - Food and shelter
    - Provide orientation to safe and unsafe activities
    - Facilitate communication with family, friends and community
    - Assess environment for ongoing threat of disease
    - Promote healthy routines and behaviors
  - Psychological First Aid
    - Support and “presence” for those who are most distressed
    - Provide information about family safety, staying together and reunions with loved ones and risks involved
    - Provide information and education to normalize reactions and promote adaptive coping
    - Foster communication
    - Protect survivors from further harm
    - Reduce physiological arousal
    - Discourage use of stimulants, alcohol or other substances
  - Monitor environment
    - Identify tipping points
    - Observe and listen to those most affected
    - Monitor environment for stressors
    - Conduct mental health surveillance to inform response efforts
    - Provide education on limiting media exposure, thought and talk exposure
  - Technical assistance, consultation and training

- Improve capacity of organizations and caregivers to provide what is needed to re-establish community structure, foster family recovery and resilience, and safeguard community
- Provide to:
  - Relevant organizations
  - Other caregivers and responders
  - Leaders
- Public Mental Health Authority
  - Establish linkages with SEMA, DHSS, FEMA and Center for Mental Health Services (CMHS) to:
    - Authorize and develop immediate services grant if available
    - Identify possible tipping points
  - Activate mental health response consistent with functions listed above
    - Utilize crisis counselors, as appropriate
    - Provide hotline as response and referral resource, as appropriate
    - Disseminate mental health outreach materials
    - Participate in Missouri Voluntary Organizations Active in Disaster and the Governor's Disaster Recovery Partnership
    - Coordinate service delivery and develop linkages with mental health services offered by Red Cross, Salvation Army and other VOADs
    - Authorize and fund use of interpreters as appropriate
  - Establish communications links with Community Mental Health Centers (CMHCs) in affected areas
  - Needs assessment for FEMA crisis counseling grant application
    - Gather information about mental health need
    - Gather assessment information for inclusion in FEMA grant if applicable
    - Analyze census and other data regarding the impact on special needs populations
      - Assess impact on Special Needs Population (SNP)
      - Explore options to utilize indigenous, bilingual resource in CCP
    - If applicable, complete and submit FEMA immediate services grant application
      - Submit draft based on Federal timeline and approval
      - Submit completed immediate services grant application no later than 14 days after federal approval
      - Develop SNP component based on data, including incorporating use of indigenous, bilingual, interpreter resources
  - Develop FEMA Regular Services Grant application if appropriate
    - Upon grant notification, implement program
    - Administer, gather data, etc.
  - Explore other federal grant resources that may be available for behavioral health outreach

- ❑ Key Populations
  - Victims and survivors and their families
  - Emergency responders and their families
  - Health care providers and primary care providers
  - DMH clients
  - Community(ies) affected
  - General public
  - Mental health workforce
  - Mortuary care workforce

### **Supporting Families Coping with Death**

Recommendations for provision of support to those individuals and families experiencing flu-related deaths are following. The recommendations are made for coping during the pandemic alert phase.

- ❑ Address emotional aspects of a positive death experience (learn from hospice and other cultures) regarding rituals, communication, support and assistance during the period when death is apparent and imminent and after someone has died that anticipates the following
  - How to help children and others in the household cope
  - Checklist of when to seek professional mental health help if available as a preventive strategy for survivor guilt and blame
  - Checklist for dealing with bodies of the deceased
  - Information regarding what to do if someone dies in his/her home from autopsy, law enforcement point of view (such as move body or not, make a note about time of death, etc.)
  - Information regarding impact of autopsy, death certificate, on insurance, workers compensation
  - Importance of telling people what not to do (for example, authorities might not want people to bring the deceased to the hospital if mortuary services cannot pick up in a reasonable period of time and clarity about what is reasonable amount of time)
  - Address issues of health and contagion related to deceased bodies
  - Instructions regarding temporary burial if adopted as public policy
  - Dealing with stress, survivor guilt
  - Self care tips for caregiver's physical and emotional health
  - Teleconference funerals with plans for later memorial activities
  - Encourage people to write personal obituaries, gather meaningful objects, write down meaningful history, keep a journal
- ❑ Hotline specifically tailored to death issues, staffed by people prepared to deal with issue (call center can be remote location where staffing is not an issue or calls can be routed to people working from home)
  - Call center staff/volunteers should be trained in grief and bereavement support, traumatic grief and cultural competence
  - Need sensitivity to suicide risk issues and training on assessment and handling calls
  - Need to be aware of coroner guidance and funeral homes in area that are functioning and can accept bodies.

- Should have fact sheets to send by email or mail to support people with death, grief issues
- Partner with faith communities and funeral industry for consistency of message, provision of emotional support and dissemination of factual information about bodies and grief
- Encourage people to keep a journal of symptoms and course of illness as well as time of death, if known
- Encourage volunteer activities when possible that are safe and do not promote contagion such as:
  - Delivery of food and other items with no personal contact (i.e. drop-offs)
  - Wellness checks for neighbors and family
  - Planned, routine checks that take not if:
    - No show at expected location (work, scheduled activity, etc)
    - Pets unattended or howling
    - Unusual smells
    - No activity seen or no affirmed evidence of life for some period of time
  - Wellness checks and pet care for animals whose owners are hospitalized or have died
- Guide families to use “flu recovered” persons who now have immunity to assume responsibility for those aspects of life requiring exposure to contagion being careful not to use children to take on adult responsibilities, especially if it involves death
- Educate families about the benefit of children remaining with parents even during very stressful events such as death since experience teaches us that separation from parents can have greater long term negative outcomes than exposure to trauma in an intact family
  - Decision making that balances risk of contagion and separation risks as well as exposure to death
  - Fact sheet addressing how to prepare and cope with death experiences with kids
  - Educate families about:
    - Trading off caregiving to provide rest and stress breaks when safe
    - Safe practices to minimize risk to caretakers when caring for an ill family member
  - Minimize exposure to media

### **III. Pandemic Period (WHO Phase 6)**

#### **Mental Health Interventions**

The following content areas have been preliminarily identified for the pandemic period:

- Goals of intervention
  - Adjustment
  - Appraisal
  - Effective risk communication
  - Incorporation of skills for the “new normal” including safe behavioral practices and routines
- Role of all helpers
  - Provide information and assistance to orient affected parties
  - Needs assessment
  - Referral or service provision

- ❑ Community Mental Health Role
  - Culturally competent needs assessment
    - Assess status and how well needs are being addressed for all populations listed below
    - Of the recovery environment
    - Identify additional interventions and scope that reach out while maintaining safety
    - Conduct mental health surveillance to inform response and recovery efforts
  - Triage
    - Clinical assessment
    - Refer when indicated
    - Identify vulnerable, high-risk individuals and groups
    - Emergency hospitalization or outpatient treatment
  - Outreach and information dissemination
    - Promote large-scale community outreach and psycho-education about:
      - Post-trauma reactions that are understandable and expectable
      - Anxiety management techniques for common post-trauma problems
      - Signs of severe dysfunction
      - Limiting media exposure for those with mid-level problems of anxiety
    - Receiving brief news reports from a friend or family member, for those with more severe emotionality
    - Make contact with and identify people who have not requested services, i.e. special needs populations
    - Inform people about different services, coping, recovery process, etc. (e.g., by fliers, websites)
    - Use outreach workers who are indigenous, bilingual and culturally competent
  - Fostering resilience and recovery
    - Facilitate social interactions
    - Teach coping skills and training
    - Educate about stress response, traumatic reminders, coping, normal vs. abnormal functioning, risk factors, services
    - Facilitate group and family support
    - Foster natural social support
    - Address grief and bereavement
    - As needed, repair community and organizational fabric
    - Agencies should conduct operational debriefings to discuss methods used, and outreach and other strategies to learn and apply lessons for continued or successive operations
    - Provide or refer individuals in recovery to spiritual support strategies and encourage continued treatment and Alcoholics Anonymous and Narcotics Anonymous (AA/NA) participation
    - Instill hope
- ❑ Public Mental Health Authority
  - Establish linkages with SEMA, DHSS, FEMA and CMHS to:

- Authorize and develop immediate services grant if available
  - Identify possible tipping points
  - Conduct needs assessment for FEMA Regular Services Grant if appropriate and available.
- Activate mental health response consistent with functions listed above
  - Utilize crisis counselors, as appropriate
  - Provide hotline as response and referral resource, as appropriate
  - Disseminate mental health outreach materials
  - Participate in Community Organizations Active in Disasters (COAD)
  - Coordinate service delivery and develop linkages with mental health services offered by Red Cross, Salvation Army and other VOAD
  - Authorize and fund use of interpreters as appropriate
- Establish communications links with CMHCs in affected areas
- Needs assessment for FEMA crisis counseling grant application
  - Gather information about mental health need
  - Gather assessment information for inclusion in FEMA grant if applicable
  - Analyze census and other data regarding the impact on special needs populations
    - Assess impact on SNP
    - Explore options to utilize indigenous, bilingual resource in Crisis Counseling Program (CCP)
  - If applicable, complete and submit FEMA immediate services grant application
    - Submit draft based on Federal timeline and approval
    - Submit completed immediate services grant application no later than 14 days after federal approval
    - Develop SNP component based on data, including incorporating use of indigenous, bilingual, interpreter resources
  - If applicable, complete needs assessment for FEMA Regular Services Grant and submit application according to guidelines
- Explore other federal grant resources that may be available for behavioral health outreach
- Key Populations
  - Victims and survivors and their families
  - Emergency responders and their families
  - Health care providers and primary care providers
  - DMH clients
  - Community(ies) affected
  - General public
  - Mental health workforce
  - Mortuary care workforce

## **IV. Recovery Period**

### **Support Mental Health Disaster Training**

The following content areas have been preliminarily identified for the pandemic recovery periods:

*Target Audience: Health Care Workers*

Training Content:

- ❑ Trauma informed mental health assessments including checklists of at-risk populations and characteristics
- ❑ Best practice guidelines for referral and treatment of chronic stress and mental health conditions associated with trauma (depression, anxiety, post traumatic stress disorder (PTSD), etc.) as well as traumatic grief recovery
- ❑ Suicide risk information and suicide prevention strategies with contact lists and resources
- ❑ Paper and electronic resource brochures and fact sheets related to recovery including domestic violence and substance abuse that may be more common after traumatic events
- ❑ Referral inventory of numbers (voice and fax) for specialized mental health needs and referral form plus checklist of effective referral strategies
- ❑ Resilience building checklists and recommendations for self-care, peer care and supervisors

*Target Audience: Mental Health Workers – including public and private sector*

Training Content:

- ❑ Consultation checklists to advise organizations regarding systemic level interventions to promote recovery and hope
- ❑ Trauma informed mental health assessments including checklists of at-risk populations and characteristics
- ❑ Best practice guidelines for referral and treatment of chronic stress and mental health conditions associated with trauma (depression, anxiety, PTSD, etc.) as well as traumatic grief recovery
- ❑ Suicide risk information and suicide prevention strategies
- ❑ Paper and electronic resource brochures and fact sheets related to recovery including domestic violence and substance abuse that may be more common after traumatic events
- ❑ Resilience building checklists and recommendations tailored to different populations

*Target Audience: Public Health*

Training Content:

- ❑ Trauma informed mental health assessments including checklists of at-risk populations and characteristics
- ❑ Best practice guidelines for referral and treatment of chronic stress and mental health conditions associated with trauma (depression, anxiety, PTSD, etc.) as well as traumatic grief recovery
- ❑ Suicide risk information and suicide prevention strategies with contact lists and resources
- ❑ Paper and electronic resource brochures and fact sheets related to recovery including domestic violence and substance abuse that may be more common after traumatic events
- ❑ Referral inventory of numbers (voice and fax) for specialized mental health needs and referrals form plus checklist of effective referral strategies

- ❑ Resilience building checklists and recommendations for self-care, peer care and supervisors
- ❑ Mental health indicators to monitor that are predictive of chronic public health needs
- ❑ Research participation guidance and contact lists for public health workers and clientele

*Target Audience: Emergency Responders*

Content Training:

- ❑ Trauma informed referral checklists of at-risk populations and characteristics
- ❑ Referral decision-trees for chronic stress and mental health conditions associated with trauma (depression, anxiety, PTSD, etc.) as well as traumatic grief recovery
- ❑ Suicide risk information and suicide prevention strategies with contact lists and resources
- ❑ Paper and electronic resource brochures and fact sheets related to recovery including domestic violence and substance abuse that may be more common after traumatic events
- ❑ Referral inventory of numbers (voice and fax) for specialized mental health needs and referral and checklist of effective referral strategies
- ❑ Resilience building strategies for responders including re-entry and re-assimilation issues for deployed groups
- ❑ Continued EAP access giving special attention to:
  - At-risk responder groups (younger, other losses, etc.)
  - Substance abuse and relapse prevention
  - Entire family systems

*Target Audience: General Public*

Training Content:

- ❑ Public education that promotes:
  - Connectedness and social cohesion
    - Establishing new normal including reconfigured families
    - Addressing survivor guilt
    - Addressing anniversary events
  - Hope

*Target Audience: Special Populations*

Training Content:

- ❑ Public education targeted to functional needs related to:
  - Connectedness and social cohesion
    - Establishing new normal including reconfigured families
    - Addressing survivor guilt
    - Addressing anniversary events
  - Hope

*Target Audience: Civic and Service Organizations – including volunteers, caregivers and natural helpers*

Training Content:

- ❑ Trauma informed referral checklists of at-risk populations and characteristics
- ❑ Referral decision-trees for chronic stress and mental health conditions associated with trauma (depression, anxiety, PTSD, etc.) as well as traumatic grief recovery
- ❑ Suicide risk information and suicide prevention strategies with contact lists and resources



- ❑ Paper and electronic brochures and fact sheets related to recovery including domestic violence and substance abuse that may be more common after traumatic events
- ❑ Referral inventory of numbers (voice and fax) for specialized mental health needs and referral form plus checklist of effective referral strategies

*Target Audience: Large Employers and Human Resource Professionals*

Training Content:

- ❑ Checklists for changes to workplace environment and policies that promote:
  - Self-efficiency and value
  - Connectedness and social cohesion
  - Hope
- ❑ Paper and electronic resource brochures and fact sheets related to recovery, including mental health conditions, stress, traumatic grief, etc.
- ❑ Activation of pre-planned EAP resource lines to handle increased demand

*Target Audience: Government Leaders, Public Officials and Public Information Officers*

Training Content:

- ❑ Risk communication checklists and toolkits
- ❑ Prepared scripts and public education materials to instruct the public from both physical and emotional perspectives how to promote safety, calm, confidence, connectedness and hope consistent with best practices
- ❑ Checklist of tipping points that indicate potential for social unrest or panic

*Target Audience: Coroners, Medical Examiners and Funeral Directors*

Training Content:

- ❑ Checklist of psychological first aid “to do” activities tailored to recovery
- ❑ Paper and electronic resource brochures and fact sheets related to stress, grief, etc.
- ❑ Referral inventory of numbers (voice and fax) for additional mental health needs and referral form
- ❑ Self-care fact sheets, checklists and buddy-forms for peer care
- ❑ Activation of pre-planned EAP strategies resource lines facing increased demand

*Target Audience: Schools*

Training Content:

- ❑ Checklist for school start-up and recognition activities that incorporate strategies to promote:
  - Self-efficiency and value
  - Connectedness and social cohesion
  - Hope
  - Sensitivity for survivors and remembrance for students and staff who died
- ❑ Paper and electronic resource brochures and fact sheets related to recovery and associated issues
- ❑ Referral inventory of numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
  - Anniversary issues
  - Suicide awareness and prevention
  - Family disruption (due to death, domestic violence, unemployment)

- ❑ Activation of pre-planned EAP resource lines to respond to increased stress of school personnel

*Target Audience: Faith-Based Leaders and Communities*

- ❑ Checklists of faith-based activities, rituals and traditions that promote recovery as well as:
  - Self-efficiency and value
  - Connectedness and social cohesion
  - Hope
- ❑ Paper and electronic resource brochures and fact sheets related to recovery and associated issues.
- ❑ Referral inventory of numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
  - Anniversary issues
  - Suicide awareness and prevention
  - Family disruption (due to death, domestic violence, unemployment)
  - Sensitivity for survivors and remembrance for those who died

*Target Audience: Human Service Agencies Active in Recovery*

**Training Content:**

- ❑ Checklists of support that promotes:
  - Safety
  - Self-efficiency
  - Connectedness and social cohesion
  - Hope
  - Sensitivity for survivors and remembrance for those who died
- ❑ Psychological first aid tip sheets that are designed for mass fatality scenarios
  - General principles
  - Normalizing reactions and outreach
  - Address grief and bereavement
  - Indicators for referral to mental health workers and referral “how to’s”
- ❑ Paper and electronic resource brochures and fact sheets related to recovery and associated issues
- ❑ Referral inventory of numbers (voice and fax) for additional mental health needs and referral form for ease of referral and follow-through
  - Anniversary issues
  - Suicide awareness and prevention
  - Family disruption (due to death, domestic violence, unemployment)
- ❑ How to access EAP resource lines when facing increased stress

**Partner with Faith-Based Organizations**

The following content areas have been preliminarily identified for the pandemic recovery period.

- ❑ Congregation and community rebuilding
  - Use developed partnerships to support the community in losses through memorials, special events, etc. to help rebuild the fabric of the community and to support families and individuals.

- Determine ways to celebrate your congregations ability to meet together again if public services were canceled
- Plan programs to support those recovering, including those who will have long term effects from the illness due to disabilities, loss of family, etc.
- Consider the long term physical, emotional, social and economic impact of the emergency on families such as disabilities, loss of income, inability to meet basic needs, etc. and how faith organizations can respond
- If congregations have great losses of members, consider meeting with sister congregations to work together toward recovery
- Initiate support groups to assist those with longer term disabilities as a result of illness, their family members and those in grief over losses
- Learn the signs of depression, and suicide risks and refer congregational members and staff when needed to pre-identified mental health professionals

### **Mental Health Interventions**

The following content areas have been preliminarily identified for the recovery period:

- Goals of intervention
  - Reintegration
  - Recovery of pre-incident roles and functional activities
  - Unified and strong community
  - Incorporation of skills for the “new normal”
- Role of all helpers
  - Supportive assistance
    - Information and referral
    - Service provision
  - Practical assistance to restore functional competencies
  - Resource development
  - Community development
- Community Mental Health Role
  - Monitor the recovery environment
    - Encourage and listen to feedback
    - Conduct mental health surveillance to inform recovery efforts
    - Monitor continuing outbreak threats/effects
    - Monitor services being provided
    - Monitor management of fatalities
  - Foster resilience and recovery
    - Facilitate social interactions
    - Teach coping skills
    - Educate about chronic stress, anniversary and trigger events that will be unique to each family, and available services
    - Facilitate group and family support
    - Foster natural social support
    - Address grief and bereavement
    - Promote community unity and healing
    - Recognize need for spiritual support and refer as needed
    - Encourage continued practice of relapse prevention, participation in treatment and self-help recovery groups

- Instill hope
- Community development
  - Promote social connectedness
  - Support use of community ritual and commemorative activities to strengthen and re-unify community
  - Partner to address needs of disability and other at-risk groups
  - Develop resources and partnerships with diverse cultures within communities
  - Foster competent communities that provide safety, material resources, support for families and encouragement of well-being
- Public education
  - Predict and stress positive outcomes and typical emotional reactions in recovery phase
  - Anticipate and prepare for anniversary responses and other triggers that may be multiple and will be unique to each family
  - Disseminate stress management and coping materials
  - Through media and outreach, conduct mental health promotion and prevention efforts to:
    - Assist with stress management and coping
    - Reduce risk factors
    - Target prevention efforts to at-risk groups, including special populations
    - Integrate substance abuse and relapse prevention efforts
    - Encourage mobilization of natural and informal helping systems (families, civic and service clubs, churches, schools, other communities of interest)
- Traditional mental health services
  - Refer to available community mental health and substance abuse services and admit/treat consistent with clinical and financial eligibility
  - Refer eligible individuals to Medicaid service providers for mental health or substance abuse services
  - Refer to EAP providers for covered individuals
- Public Mental Health Authority
  - Assess need for FEMA regular services grant, CMHS' Substance Abuse Mental Health Services Administration (SAMHSA) Emergency Response Grant funds or other funding streams that may be available
  - Develop and submit written FEMA Crisis Counseling Program Regular Services Program Grant application if appropriate
    - Request extension of immediate services portion of grant
    - Consider need for enhanced or specialized RSP services
    - Include formal evaluation model as component
  - If regular services grant not pursued:
    - Complete implementation of immediate services grant
    - Conduct necessary close out activities
  - Participate in and coordinate with the Missouri Disaster Recovery Partnership
  - Conduct data collection and analysis to inform program management and future mental health response efforts

- Contribute to research and literature base
- Conduct after-action evaluation efforts
  - Lessons learned
  - Feedback to inform future planning efforts
- ❑ Key Populations
  - Victims and survivors and their families
  - Emergency responders and their families
  - DMH clients
  - Community(ies) affected
  - Formal helping systems (government and private sector, domestic violence)
  - Health care providers and primary care providers, including mental health treatment providers
  - Mortuary care workforce
  - Natural and informal helping systems
  - Awareness and education of general public to reduce stigma and increase help-seeking behavior.

### **Supporting Families Coping with Death**

Recommendations for provision of support to those individuals and families experiencing flu-related deaths are following. The recommendations are made for coping during the recovery phase.

- ❑ Plan for and encourage appropriate memorials, ceremonies, and reburials as necessary that are consistent with cultural and religious practices of the deceased
- ❑ Anticipate increased mental health needs and supports such as but not limited to:
  - Support groups for grief and bereavement
  - Suicide prevention activities
  - Relapse prevention for substance and gambling disorders
  - Family support for increasing numbers of blended families after the flu outbreak due to adoption, substitute caregivers, and remarriage
- ❑ Promote social re-connection and community cohesion when safe
- ❑ Prepare for anniversary events and future threats such as additional waves of illness or other contagious illnesses
- ❑ Anticipate surge in:
  - Funerals
  - Weddings
  - Births
  - Family reunions, graduations and other milestones
  - Requests for marriage, death and birth certificates, some expedited requests
  - Applications for social security benefits, life insurance, workers comp and other death benefits
  - Moves and relocation in housing and school attendance
  - Bankruptcies and home foreclosures
  - Job changes
- ❑ Increased mental health risks due to:
  - Survivor guilt as a source of stress and anxiety

- Domestic violence
- Economic disruption and job loss
- Anticipate long term health and disability burdens for:
  - Physical health (limited endurance, compromised lung function, etc.)
  - Mental health (depression, anxiety, PTSD, etc.)

### **Long-Term Recovery**

Planning for long term-recovery in a pandemic flu event is particularly complex given the following assumptions:

- The development in the mental health field related to disasters and public health emergencies is evolving and is informed by recent events such as the SARs outbreak and large-scale catastrophic disasters such as the 2004 tsunami and Hurricane Katrina
- Long term recovery efforts are generally poorly funded
- Funding streams for short and long term mental health services and supports is unclear
- The charitable and volunteer sector are often the cornerstone of recovery efforts as well as public welfare systems that are not designed for disaster application
- Public interest wanes after the news cycle has been exhausted
- Disease and disability burden among the general population may be high as a consequence, with high rates of mental health morbidity to be expected
- The long term implications for persons who have sheltered in place for an extended period or who have been isolated or quarantined are unknown but can be expected to include mental health consequences
- Any period of economic downturn generally results in higher rates of depression, substance abuse, domestic violence and family disruption in a society
- The long term consequences of high death rates can include high rates of single parent households or children orphaned, legal disputes related to life insurance and property, as well as custody and health care decision-making if young people die intestate, diminished access to health and mental health care, and trauma associated with death experiences that were sudden and unexpected, involved prolonged delay in transfer of the body to the funeral home, or involved temporary and multiple burials perhaps with no funeral or memorial ceremonies
- Extensive reminders and multiple anniversary dates of traumatic loss may trigger prolonged or renewed need for emotional support and assistance

The recovery phase will be an extension of ongoing mental health response activities without clear demarcation of transition from one phase to another except perhaps in retrospect. Using the planning framework established in the Department of Mental Health Community Mental Health Response Plan for disaster events, modifications have been made in the attached Missouri Model\* For Mental Health Response and Recovery After A Public Health Event matrix (Attachment A) to provide a procedural approach to managing the mental health response through all phases of a pandemic including the recovery phase. Specific activities for the recovery phase may include but are not limited to:

- Re-establishing pre-event functional abilities and a new “norm” for post-pandemic social behaviors
- Helping many to cope with complicated and traumatic grief issues
- Adjustment to family reconfiguration and adjustment due to death, disability and economic difficulties

- ❑ Community activities that promote social cohesion and unity such as recognition and appreciation rituals and memorials, community “self-help” activities and partnerships that strengthen mutual and natural support efforts, and “anniversary” events to assist individuals and communities to move forward in their recovery
- ❑ Resilience development strategies that promote individuals and communities efficacy and mastery
- ❑ Resource development for long term mental health services and supports for large numbers of individuals who require transitory mental health assistance in dealing with their emotional recovery as well as those who experience adverse mental health outcomes such as depression, substance abuse, anxiety, and PTSD and require long term support

It is important to note that plans for recovery must be malleable and shaped by the nature of the pandemic and its specific impact on the American culture. Those managing the health and mental health response to a pandemic must be prepared to adjust their approach to tailor strategies to the unique face of an event. For instance, if a pandemic were to disproportionately affect young adults, leaving children with one or no parents, planning for the recovery is different than if the pandemic led to the deaths of large numbers of infants and children. Other aspects of the pandemic that can lead to dramatically different planning scenarios include the length and scale of the pandemic as well as the lethality of the flu variant, geographic and economic impacts, amount and degree of voluntary as opposed to involuntary use of social distancing, isolation and quarantine as tools in containment, availability of welfare services and income supports to individuals in quarantine or isolation, the level of public trust and degree to which the public conforms its behavior to official guidance, and the degree that panic or social unrest are factors of concerns.

Missouri should be prepared for extensive use of venues such as the Disaster Recovery Partnership as tools to address the complex long term issues that will face communities in the event of a pandemic.

**ATTACHMENT A –**  
**MISSOURI MODEL\* FOR MENTAL HEALTH RESPONSE AND RECOVERY AFTER A PUBLIC HEALTH EVENT DRAFT 09/07/06**

PHASE	PREPAREDNESS	EARLY PANDEMIC RESPONSE (IMMEDIATE) (DURATION)		LATER RESPONSE AND RECOVERY
<b>GOALS OF INTERVENTION</b>	<ul style="list-style-type: none"> <li>Preparedness</li> <li>Resilience                             <ul style="list-style-type: none"> <li>Conveyance of safety and resilience factors rather than imminent threat</li> </ul> </li> <li>Mitigation of risk factors including                             <ul style="list-style-type: none"> <li>Health protective and response behaviors</li> <li>Development of risk communication strategies</li> <li>Activities to promote community social cohesion</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Safety and survival</li> <li>Meet basic needs</li> <li>Effective communication</li> <li>Effective risk communication</li> <li>Incorporation of skills for the “new normal” including safe behavioral practices and routines</li> </ul>	<ul style="list-style-type: none"> <li>Adjustment</li> <li>Appraisal</li> <li>Effective risk communication</li> <li>Incorporation of skills for the “new normal” including safe behavioral practices and routines</li> </ul>	<ul style="list-style-type: none"> <li>Reintegration</li> <li>Recovery of pre-incident roles and functional activities</li> <li>Unified and strong community</li> <li>Incorporation of skills for the “new normal”</li> </ul>
<b>ROLE OF ALL HELPERS</b>	<ul style="list-style-type: none"> <li>Planning</li> <li>Public education</li> <li>Communication</li> <li>Workforce preparedness &amp; training</li> <li>Resource development</li> <li>Community development</li> </ul>	<ul style="list-style-type: none"> <li>Protection</li> <li>Reduction of stress &amp; arousal</li> <li>Reassurance</li> </ul>	<ul style="list-style-type: none"> <li>Provide information and assistance to orient affected parties</li> <li>Needs assessment</li> <li>Referral or service provision</li> </ul>	<ul style="list-style-type: none"> <li>Supportive assistance                             <ul style="list-style-type: none"> <li>Information &amp; referral</li> <li>Service provision</li> </ul> </li> <li>Practical assistance to restore functional competencies</li> <li>Resource development</li> <li>Community development</li> </ul>
<b>COMMUNITY MENTAL HEALTH ROLE</b>	<p><b><u>Mental Health Response Planning &amp; Preparation at local level</u></b></p> <ul style="list-style-type: none"> <li>Collaborate @ local level</li> <li>Inform &amp; influence policy</li> <li>Set structures for assistance                             <ul style="list-style-type: none"> <li>Develop surge capacity</li> <li>Assess usable technologies, i.e. phone, tele-communication, etc.</li> <li>Integrate substance abuse</li> <li>With diverse communities</li> </ul> </li> <li>Advocacy for people w/ special needs</li> </ul> <p><b><u>Workforce Development</u></b></p> <ul style="list-style-type: none"> <li>Leadership preparation &amp;</li> </ul>	<p><b><u>Basic Needs</u></b></p> <ul style="list-style-type: none"> <li>Establish safety, security, &amp; survival</li> <li>Food &amp; shelter</li> <li>Provide orientation to safe and unsafe activities.</li> <li>Facilitate communication w/ family, friends &amp; community</li> <li>Assess environment for ongoing threat of disease,</li> <li>Promote healthy routines &amp; behaviors</li> </ul> <p><b><u>Psychological First Aid</u></b></p> <ul style="list-style-type: none"> <li>Support &amp; “presence” for those who are most distressed</li> </ul>	<p><b><u>Culturally Competent Needs Assessment</u></b></p> <ul style="list-style-type: none"> <li>Assess status &amp; how well needs are being addressed for all populations listed below</li> <li>Of the recovery environment</li> <li>Identify additional interventions and scope that reach out while maintaining safety</li> <li>Conduct mental health surveillance to inform response &amp; recovery efforts</li> </ul> <p><b><u>Triage</u></b></p> <ul style="list-style-type: none"> <li>Clinical assessment</li> <li>Refer when indicated</li> </ul>	<p><b><u>Monitor the recovery environment</u></b></p> <ul style="list-style-type: none"> <li>Encourage &amp; listen to feedback</li> <li>Conduct mental health surveillance to inform recovery efforts</li> <li>Monitor continuing outbreak threats/ effects</li> <li>Monitor services being provided</li> <li>Monitor management of fatalities</li> </ul> <p><b><u>Foster resilience &amp; recovery</u></b></p> <ul style="list-style-type: none"> <li>Facilitate social interactions</li> </ul>



PHASE	PREPAREDNESS	EARLY PANDEMIC RESPONSE (IMMEDIATE) (DURATION)	LATER RESPONSE AND RECOVERY
<b>COMMUNITY MENTAL HEALTH ROLE</b> <b>(CONTINUED)</b>	<p>functions</p> <ul style="list-style-type: none"> <li>Promote awareness &amp; increase capacity for:               <ul style="list-style-type: none"> <li>Personal preparedness</li> <li>Work-related preparedness, i.e. human resource policies</li> <li>Recruitment of indigenous, bilingual</li> </ul> </li> <li>Train responders in evidence-based mental health response skills consistent with assigned responsibilities               <ul style="list-style-type: none"> <li>Mental health professionals</li> <li>Crisis counselors</li> <li>Outreach workers</li> <li>Substance abuse counselors</li> <li>Interpreters</li> <li>Health workforce</li> <li>Mortuary workforce</li> <li>Natural helpers</li> </ul> </li> <li>Promote resilience building, stress management &amp; self-care</li> </ul> <p><b>Public Education</b></p> <ul style="list-style-type: none"> <li>Preparedness campaigns &amp; materials that address safety &amp; resilience rather than imminent threat</li> <li>Mental health promotion &amp; prevention efforts to:               <ul style="list-style-type: none"> <li>Build emotional resilience</li> <li>Increase protective factors</li> <li>Target prevention efforts to at-risk groups, including special populations</li> <li>Integrate substance abuse &amp; relapse prevention efforts</li> </ul> </li> <li>Cultivate relationships with &amp; educate media</li> </ul> <p><b>Community Development</b></p>	<ul style="list-style-type: none"> <li>Provide information about family safety, staying together and reunions w/ loved ones and risks involved</li> <li>Provide information &amp; education to normalize reactions &amp; promote adaptive coping</li> <li>Foster communication</li> <li>Protect survivors from further harm</li> <li>Reduce physiological arousal</li> <li>Discourage use of stimulants, alcohol or other substances</li> </ul> <p><b>Monitor environment</b></p> <ul style="list-style-type: none"> <li>Identify tipping points</li> <li>Observe and listen to those most affected</li> <li>Monitor environment for stressors</li> <li>Conduct mental health surveillance to inform response efforts</li> <li>Provide education on limiting media exposure, thought and talk exposure</li> </ul> <p><b>Technical assistance, consultation &amp; training</b></p> <ul style="list-style-type: none"> <li>Improve capacity of organizations &amp; caregivers to provide what is needed to re-establish community structure, foster family recovery &amp; resilience, and safeguard community</li> <li>Provide to:               <ul style="list-style-type: none"> <li>Relevant organizations</li> <li>Other caregivers and responders</li> <li>Leaders</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Teach coping skills</li> <li>Educate about chronic stress, anniversary &amp; trigger events that will be unique to each family, coping, &amp; available services</li> <li>Facilitate group and family support</li> <li>Foster natural social support</li> <li>Address grief &amp; bereavement</li> <li>Promote community unity &amp; healing</li> <li>Recognize need for spiritual support &amp; refer as needed</li> <li>Encourage continued practice of relapse prevention, participation in treatment and self-help recovery groups</li> <li>Instill hope</li> </ul> <p><b>Community Development</b></p> <ul style="list-style-type: none"> <li>Promote social connectedness</li> <li>Support use of community ritual &amp; commemorative activities to strengthen &amp; re-unify community</li> <li>Partner to address needs of disability &amp; other at-risk groups</li> <li>Develop resources &amp; partnerships with diverse cultures within communities</li> <li>Foster competent communities that provide safety, material resources, support for families and encouragement of well-being</li> </ul> <p><b>Public Education</b></p> <ul style="list-style-type: none"> <li>Predict &amp; stress positive outcomes &amp; typical</li> </ul>

PHASE	PREPAREDNESS	EARLY PANDEMIC RESPONSE (IMMEDIATE) (DURATION)		LATER RESPONSE AND RECOVERY
<b>COMMUNITY MENTAL HEALTH ROLE</b> <b>(CONTINUED)</b>	<ul style="list-style-type: none"> <li>Partner to address needs of disability &amp; other at-risk groups</li> <li>Develop resources &amp; partnerships with diverse cultures within communities</li> </ul>		<ul style="list-style-type: none"> <li>risk factors, services</li> <li>Facilitate group and family support</li> <li>Foster natural social support</li> <li>Address grief &amp; bereavement</li> <li>As needed, repair community &amp; organizational fabric</li> <li>Conduct operational debriefings, when standing procedure in responder organizations</li> <li>Provide or refer to spiritual support</li> <li>Encourage relapse prevention strategies for individuals in recovery &amp; encourage continued treatment &amp; AA/NA participation</li> <li>Instill hope</li> </ul>	<p>emotional reactions in recovery phase</p> <ul style="list-style-type: none"> <li>Anticipate &amp; prepare for anniversary responses &amp; other triggers that may be multiple and will be unique to each family</li> <li>Disseminate stress management &amp; coping materials</li> <li>Through media and outreach, conduct mental health promotion &amp; prevention efforts to:               <ul style="list-style-type: none"> <li>Assist with stress management &amp; coping</li> <li>Reduce risk factors</li> <li>Target prevention efforts to at-risk groups, including special populations</li> <li>Integrate substance abuse &amp; relapse prevention efforts</li> <li>Encourage mobilization of natural &amp; informal helping systems (families, civic &amp; service clubs, churches, schools, other communities of interest)</li> </ul> </li> </ul> <p><b><u>Traditional Mental Health Services</u></b></p> <ul style="list-style-type: none"> <li>Refer to available community mental health and substance abuse services &amp; admit/treat consistent with clinical &amp; financial eligibility</li> <li>Refer eligible individuals to</li> </ul>

PHASE	PREPAREDNESS	EARLY PANDEMIC RESPONSE (IMMEDIATE) (DURATION)		LATER RESPONSE AND RECOVERY
COMMUNITY MENTAL HEALTH ROLE (CONTINUED)				Medicaid service providers for mental health or substance abuse services <ul style="list-style-type: none"><li>Refer to EAP providers for employed/covered individuals</li></ul>
PUBLIC MENTAL HEALTH AUTHORITY	<u>Mental Health Response Planning &amp; Preparation at state level</u> <ul style="list-style-type: none"><li>Collaborate @ state level</li><li>Interagency collaboration to develop guidance to:<ul style="list-style-type: none"><li>Shape adaptive behaviors</li><li>Reduce social and emotional deterioration and improve functioning</li><li>Support key personnel in critical infrastructure functions</li><li>Facilitate coping &amp; recovery</li></ul></li><li>Policy development including human resources, &amp; leadership preparation &amp; functions</li><li>Infrastructure support for rapid assistance<ul style="list-style-type: none"><li>Surge capacity including telephonic and tele-communication</li><li>Integrate substance abuse</li><li>With diverse communities</li></ul></li><li>Plan &amp; develop infrastructure for:<ul style="list-style-type: none"><li>Implementation of FEMA Crisis Counseling Program if available or other fiscal resources<ul style="list-style-type: none"><li>Financial models</li><li>CCP templates</li><li>TA for services &amp; billing</li><li>Administrative support</li></ul></li><li>Mutual aid strategies</li></ul></li></ul>	<ul style="list-style-type: none"><li>Establish linkages with SEMA, DHSS, FEMA and CMHS to:<ul style="list-style-type: none"><li>Authorize and develop immediate services grant if available</li><li>Identify possible tipping points</li></ul></li><li>Activate mental health response consistent with functions listed above<ul style="list-style-type: none"><li>Utilize crisis counselors, as appropriate</li><li>Provide hotline as response &amp; referral resource, as appropriate</li><li>Disseminate mental health outreach materials</li><li>Participate in COADs</li><li>Coordinate service delivery &amp; develop linkages with mental health services offered by Red Cross, Salvation Army &amp; other VOAD</li><li>Authorize &amp; fund use of interpreters as appropriate</li></ul></li><li>Establish communications links with CMHCs in affected areas</li><li>Needs assessment for FEMA crisis counseling grant application<ul style="list-style-type: none"><li>Gather information about mental health need</li><li>Gather d assessment information for inclusion in FEMA grant if applicable</li><li>Analyze census &amp; other data re: impact on special needs populations<ul style="list-style-type: none"><li>Assess impact on SNP</li><li>Explore options to utilize indigenous, bilingual resource in CCP</li></ul></li></ul></li><li>If applicable, complete &amp; submit FEMA immediate services grant application<ul style="list-style-type: none"><li>Submit draft based on Federal timeline and approval</li><li>Submit completed immediate services grant application no later than 14 days after federal approval</li><li>Develop SNP component based on data, including incorporating use of indigenous, bilingual, interpreter resources</li></ul></li></ul>		<ul style="list-style-type: none"><li>Assess need for FEMA regular services grant, CMHS SERG funds or other funding streams that may be available</li><li>Develop and submit written RSP application if appropriate<ul style="list-style-type: none"><li>Request extension of immediate services portion of grant</li><li>Consider need for enhanced or specialized RSP services</li><li>Include formal evaluation model as component</li></ul></li><li>If regular services grant not pursued:<ul style="list-style-type: none"><li>Complete implementation of immediate services grant</li><li>Conduct necessary close out activities</li></ul></li><li>Participate in and coordinate with the Missouri Disaster Recovery Partnership</li><li>Conduct data collection &amp; analysis to inform program management and future mental health response efforts<ul style="list-style-type: none"><li>Contribute to research &amp; literature base</li></ul></li></ul>

PHASE	PREPAREDNESS	EARLY PANDEMIC RESPONSE (IMMEDIATE) (DURATION)	LATER RESPONSE AND RECOVERY
<b>PUBLIC MENTAL HEALTH AUTHORITY</b> <i>(CONTINUED)</i>	<ul style="list-style-type: none"> <li>▪ <i>Among CMHCs</i></li> <li>▪ <i>With ARC, other VOAD agencies</i></li> </ul> <p><b><u>Workforce development</u></b></p> <ul style="list-style-type: none"> <li>▪ Continuity planning</li> <li>▪ Training for public health, other health care providers such as hospitals and primary care, mortuary workers, mental health, etc.</li> <li>▪ Exercises</li> </ul> <p><b><u>Resource development</u></b></p> <ul style="list-style-type: none"> <li>▪ Funds</li> <li>▪ Grants</li> <li>▪ Technical Assistance</li> </ul> <p><b><u>Regulatory Role</u></b></p> <ul style="list-style-type: none"> <li>▪ Competency-based standards for workforce               <ul style="list-style-type: none"> <li>○ Competencies, including self-care</li> <li>○ Cultural competencies &amp; use of interpreters</li> </ul> </li> <li>▪ Agency planning &amp; preparedness licensure &amp; certification standards</li> </ul> <p><b><u>Advocacy with priority given to:</u></b></p> <ul style="list-style-type: none"> <li>▪ DMH clients (<i>adults &amp; children with psychiatric, MR, DD, substance abuse needs</i>)</li> <li>▪ School children</li> <li>▪ Individuals with diverse cultural backgrounds &amp; language abilities</li> <li>▪ Other Special Needs Populations (SNP), as resources permit</li> </ul>		<ul style="list-style-type: none"> <li>○ Conduct after-action evaluation efforts               <ul style="list-style-type: none"> <li>* Lessons learned</li> <li>* Feedback to inform future planning efforts</li> </ul> </li> </ul>
<b>KEY POPULATIONS</b>	<ul style="list-style-type: none"> <li>▪ General public</li> <li>▪ DMH clients</li> <li>▪ Special Needs Populations               <ul style="list-style-type: none"> <li>○ Children</li> <li>○ Elderly</li> <li>○ Persons with disabilities</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Victims &amp; survivors and their families</li> <li>▪ Emergency Responders &amp; their families</li> <li>▪ Health care providers and primary care providers</li> <li>▪ DMH clients</li> <li>▪ Community(ies) affected</li> <li>▪ General public</li> </ul>	<ul style="list-style-type: none"> <li>▪ Victims &amp; survivors &amp; their families</li> <li>▪ Emergency Responders &amp; their families</li> <li>▪ DMH clients</li> <li>▪ Community(ies) affected</li> </ul>

PHASE	PREPAREDNESS	EARLY PANDEMIC RESPONSE (IMMEDIATE) (DURATION)	LATER RESPONSE AND RECOVERY
<b>KEY POPULATIONS (CONTINUED)</b>	<ul style="list-style-type: none"> <li>○ Homeless</li> <li>○ Diverse cultures               <ul style="list-style-type: none"> <li>* Language other than English</li> <li>* People who are not US citizens</li> </ul> </li> <li>▪ Health Workforce</li> <li>▪ Mental health workforce</li> <li>▪ Mortuary care workforce</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mental health workforce</li> <li>▪ Mortuary care workforce</li> </ul>	<ul style="list-style-type: none"> <li>▪ Formal helping systems (government &amp; private sector, domestic violence)</li> <li>▪ Health care providers &amp; primary care providers, including mental health treatment providers</li> <li>▪ Mortuary care workforce</li> <li>▪ Natural &amp; informal helping systems</li> <li>▪ Awareness &amp; education of general public to reduce stigma &amp; increase help-seeking behavior</li> </ul>

# Pandemic Influenza Plan – Mortuary Affairs

---

For more information, contact chair Mike Wood at [Mike.Wood@dhss.mo.gov](mailto:Mike.Wood@dhss.mo.gov) or 816.350.5417.

## Introduction

In the event of an influenza pandemic, local jurisdictions will have to be prepared to handle a rapidly escalating increase in the number of fatalities. The total number of fatalities (including influenza and all other causes) occurring within any local jurisdiction, during a six (6) – eight (8) week pandemic wave, is estimated to be similar to that which typically occurs over six (6) months in the inter-pandemic period.

Due to the prolonged time frame and the scope of area affected by a pandemic event, it is likely that regional, state, and federal resources will not be available to provide assistance. Therefore, it is the intent of this plan to not only outline issues, processes and actions to be taken at the state level within the Missouri Department of Health and Senior Services (DHSS), but also to provide information and action steps, specific to a pandemic event, that local jurisdiction representatives like coroners/medical examiners, public health agencies, hospitals, funeral directors, elected officials, and religious representatives can utilize to assist them in local planning efforts to prepare for such a situation.

## Background

The State of Missouri has a mixed medical legal death investigation system. This system is made up of county level coroners and medical examiners. These county coroners and county medical examiners are responsible for investigating sudden or violent deaths and providing accurate, legally defensible determinations of the manner and cause of these deaths. These vital duties require very close interaction with judicial, public safety, and public health agencies. There are slight variances in the statutory descriptions of the coroner and medical examiner duties and responsibilities. See [RSMO Chapter 58 for further information](#), ([www.moga.mo.gov/STATUTES/C058.htm](http://www.moga.mo.gov/STATUTES/C058.htm))

The coroner is an elected position, every four years, at the county level. State of Missouri statutes do not require elected coroners to possess medical licensure or maintain any medical legal certifications. Any such requirements are the self imposed responsibility of the individual holding the office. Missouri statutes also outline the type of reportable cases, jurisdictional requirements and authority for the appointment of deputy coroners. See [RSMO Chapter 58 for further information](#), ([www.moga.mo.gov/STATUTES/C058.htm](http://www.moga.mo.gov/STATUTES/C058.htm))

The medical examiner is an appointed position, by the county governing body. State of Missouri statutes do require that a medical examiner must be a physician duly licensed to practice by the Missouri State Board of Healing Arts. Missouri statutes also outline the type of reportable cases, jurisdictional requirements and authority for the appointment of medical examiner assistants. See [RSMO Chapter 58 for further information](#), ([www.moga.mo.gov/STATUTES/C058.htm](http://www.moga.mo.gov/STATUTES/C058.htm)). It should be noted that a forensic pathologist usually performs any autopsies requested or required by a coroner or medical examiner office. The forensic pathologist is a licensed physician with

certifications by the American Board of Pathology in anatomic/clinic pathology and forensic pathology.

The determination as to whether an autopsy will be performed or not is at the sole discretion of the county coroner and county medical examiner from whose jurisdiction the deceased is located or was transported from (Excluding any requirements outlined in the [Missouri Child Fatality Review Panel \(CFRP\) system](http://www.moga.mo.gov/STATUTES/C058.htm), ([www.moga.mo.gov/STATUTES/C058.htm](http://www.moga.mo.gov/STATUTES/C058.htm))).

In 1991 the State of Missouri mandated the Missouri Child Fatality Review Panel (CFRP) system. This system ensures that child deaths (birth through age 17) are comprehensively reviewed. It is not believed at this time that the current policies and procedures of this system will have a detrimental impact on the local coroner or medical examiner during a pandemic event. ([Missouri Child Fatality Review Panel \(CFRP\) system](http://www.moga.mo.gov/STATUTES/C058.htm), ([www.moga.mo.gov/STATUTES/C058.htm](http://www.moga.mo.gov/STATUTES/C058.htm))).

### Planning for Mass Fatalities

In order to identify planning needs for the management of mass fatalities during a pandemic, It is important to examine each step in the management of a body under normal circumstances and then to identify what the limiting factors will be when the number of bodies increase over a short period of time. The following table identifies the usual steps. Possible solutions or planning requirements are discussed in further detail in the sections that follow this table.

**Table 1: Usual Process for Deceased Management**

Steps	Requirements	Limiting Factors	Planning for Possible Solutions/Expediting Steps
Pronounced	Person legally authorized to perform this task.	If death occurs in the home then one of these people will need to be contacted.  Availability of people able to do this task.	Provide public education on how to activate or access medicolegal systems in place.  Consider best utilization of Medical and EMS resources currently in place.  Consider planning for on-call system 24/7 specifically for this task.
Death Certified	Person legally authorized to perform this task.	Legally, may not necessarily be the same person that pronounced the death.	Consider having one authorized person perform this task en masse to improve efficiency. Ensure redundant backup is identified and outlined in plan.  Consider need for or ability to do faster scene processing.  Consider possible time delay between scene processing/certification and body pickup.  Consider need for public education on altered standards due to pandemic event.

Body Pickup	Person (s) trained and authorized to perform this task.	Staffing and transport conveyance availability, Contracted transport resource availability.	Consider best utilization of resources “collecting” bodies and time associated with response and transport.
Body Wrapped	Person(s) trained to perform this task.  Body bags	Supply of human and physical (body bags) resources.	Consider developing a rotating 6-month inventory of body bags, given their shelf life.  Consider training or expanding the role of current staff to include this task if not already a part of duties.  Consider providing this service at location where body found, in conjunction with pronouncement, if legally authorized. Otherwise include in body pickup and transportation.
Morgue Storage	Suitable facility that can be maintained at approximately 46 to 38 degrees F or 4 to 8 degrees C.	Capacity of such facilities	Identify and plan for possible temporary morgue sites.  Consider unavailability of reefer units.  Consider portable air coolers and tents
Autopsy if required	Person qualified to perform autopsy and suitable facility with equipment	Availability of human and physical resources may be required in some circumstances	Ensure that physicians and families are aware that an autopsy is not required for confirmation of influenza as cause of death.
1) Cremation*	Suitable vehicle of transportation from morgue to crematorium  Availability of cremation service.  A cremation certificate.	Capacity of the crematorium/speed of process  Availability of coroner or medical examiner to issue certificate for cases under their jurisdiction.	Identify alternative vehicles that could be used for mass transport.  Examine the capacity and surge capacity of crematoriums within the jurisdiction.  Discuss and plan appropriate storage options if the crematorium becomes backlogged.  Discuss and plan expedited cremation certificate completion process



(2) Embalming**	Suitable vehicle for transportation to the morgue.	Availability of human and physical resources.	Consult with service provided regarding the availability of supplies and potential need to stockpile or develop a rotating six (6)-month inventory of essential equipment/supplies.
		Capacity of facility and speed of process.	Consider what to do if shortage of embalming fluid occurs in pandemic event.
	Trained person		Discuss capacity and potential alternate sources of human resources to perform this task e.g. retired workers or students in training programs.
	Suitable location		Consider “recruiting” workers that would be willing to provide this service in an emergency.
Death Certificate Issuance	Person legally authorized to perform this task.	Legally, may not necessarily be the same person that pronounced or certified the death.	Consider having appropriate amount of authorized person(s) to perform this task to improve efficiency and speed processing.
			Ensure redundant backup is identified and outlined in plan.
			Consider need for public education on altered standards due to pandemic event.
Funeral service	Appropriate location(s), casket (if not cremated), funeral director.	Availability of caskets.	Contact suppliers to determine lead time for casket manufacturing and discuss possibilities for rotating 6-month inventory.
		Availability of location for service and visitation	Consider what to do if shortage of caskets occurs in pandemic event.
			Locate and acquire additional locations for surge and visitation.
			Consider alternate plans if Isolation/Quarantine issues arise.
(2a) Transportation to temporary vault or burial site	Suitable vehicle and driver.	Availability of human and physical resources.	Identify alternate vehicles that could be used for this purpose.
			Consider use of volunteer drivers.
(2b) Temporary vault storage	Access to and space in a temporary vault.	Temporary vault capacity and accessibility.	Expand capacity by increasing temporary vault sites.
(2c) Burial	Grave digger, space at cemetery.	Availability of grave diggers and cemetery space.	Identify sources of supplementary workers.

*\*Cremated bodies are not usually embalmed; families may choose to have a funeral service followed by cremation or to have the body cremated first and a memorial service later.*

*\*\*Bodies to be buried may be embalmed, but legally are not required to be. Consideration should be given to need to be stored in a temporary vault prior to burial.*

## **General Considerations**

In a mass fatality/mortuary affairs event primary responsibility falls to the local coroner or medical examiner. However, in a pandemic event people will die from a known disease process, influenza. Therefore, it is likely that once a pandemic event has occurred, many cases will be identified as natural deaths, and coroner/medical examiner jurisdiction will be waived. Deceased that are found at home, or outside of an approved healthcare facility will still need to be reported to the local coroner/medical examiner, but most likely jurisdiction will be waived. Unless there are indications found of a suspicious death or other unusual circumstance.

Public health, vital registrars, hospitals, funeral directors, embalmers, and cemetery service providers all have secondary roles and responsibilities that are crucial to the overall success of any response and handling of a pandemic mass fatality/mortuary affairs event.

In order to develop guidelines or adjust existing plans to suit the pandemic situation, local pandemic planners should ensure that the following persons are involved in mass fatality planning:

- Coroner / Medical Examiner
- Local Public Health Administrator/Director
- First Responder Community
- Representatives of the mortuary services and/or the local funeral director
- Representatives from local health care facilities
- Representatives of local religious and ethnic groups

Existing disaster plans may include provisions for mass fatalities but should be reviewed and tested regularly, to determine if these plans are appropriate for the relatively long period of increased demand which may occur in a pandemic, as compared to the shorter response period required for most disaster plans. There are currently no long-term plans in place to address the most extreme of circumstances.

## **Autopsies**

Many deaths in a pandemic would not require autopsies since autopsies are not indicated for the confirmation of influenza as the cause of death. However, for the purpose of public health surveillance (e.g., confirmation of the first cases at the start of the pandemic), respiratory tract specimens or lung tissue for culture or direct antigen testing could be collected post-mortem. Serological testing is not optimal, but could be performed. Public health agencies should coordinate with their jurisdictions coroner/medical examiner and the State Public Health Laboratory regarding this capability and the processes associated, including specimen required and proper packaging.

Any changes to regular practices pertaining to the management of bodies and autopsy requirements during pandemic situations, would require the authorization of the chief coroner /medical examiner.

### **Role of the Missouri Funeral Directors Association Disaster Response Team (MFDADRT)**

According to current State of Missouri Emergency Operations Plan: Annex - T, when a local mass fatality event surpasses the capabilities of local resources, then assistance can be request through the local Emergency Management Agency from the Missouri State Emergency Agency (SEMA) for the MFDADRT. However, due to the prolonged time frame and the scope of area affected by a pandemic event, it is likely that regional, state, and federal resources will not be available to provide assistance.

### **Role of Funeral Directors**

It is recommended that all funeral directors coordinate with their local coroners/medical examiners and become involved in their disaster and pandemic planning activities with respect to the management of mass fatalities at the local level. Accepted practice for pandemic influenza planning has recommended that funeral directors consider it a part of their professional standards to make contingency plans for what would happen if they were incapacitated or overwhelmed.

### **Preparations for Funeral Homes and Crematoriums**

In a pandemic, each individual funeral home could expect to handle about six (6) months work within a six (6) – 8 (eight) week period. That may not be a problem in some communities, but funeral homes in larger cities may not be able to cope with the increased demand.

Individual funeral homes should be encouraged to make specific plans during the interpandemic period regarding the need for additional human resources during a pandemic situation.

For example, volunteers from local service clubs or churches may be able to take on tasks such as digging graves, under the direction of current staff.

Crematoriums will also need to look at the surge capacity within their facilities. Most crematoriums can handle about one (1) body every four (4) hours and could probably run 24 hours to cope with increased demand.

Cremations have fewer resource requirements than burials and, where acceptable, this may be an expedient and efficient way of managing large numbers of bodies during a pandemic.

### **Healthcare Facilities**

Since it is possible that you could expect a marked increase in deaths in hospitals, nursing homes and other institutions (including non-traditional sites), one must plan for more rapid processing of bodies. These institutions should evaluate their current morgue capabilities, including cooler space, as well as assess what their surge capabilities are and where additional temporary morgue space can be established.

These medical service providers should also work with the local public health pandemic planners, coroner/medical examiner office, and funeral directors to ensure that they have access to the additional supplies (e.g., body bags) and preplan what can be done to expedite the steps, including the completion of required documents (e.g., vital records), necessary for efficient deceased management during a pandemic.

### Planning for Temporary Morgues

Additional temporary cold storage facilities may be required during a pandemic, for the storage of bodies prior to their transfer to funeral homes. A temporary morgue must be maintained at approximately 46 to 38 degrees F or 4 to 8 degrees C.

Consideration should also be given to rooms that can be cooled down or that portable air-cooling units can be set up. Memorandum of Understandings (MOUs) with local generator and refrigeration equipment providers should be sought to provide equipment for surge capacity. If nothing else is available consideration can be given to freezer use.

Remember, decomposition process begin immediately following death, cooling a body only slows the process. If the body is not going to be cremated, plans to expedite the embalming process should be considered since in the case of a pandemic, bodies may have to be stored for an extended period of time. Note: Embalming is not required by law, so consideration can also be given to natural burials which do not require embalming.

A survey was conducted in March 2007 of hospitals across the State of Missouri regarding their refrigerated morgue capacity, temporary on-site capacity, and temporary off-site capacity. A chart below outlines this information.

**Table 2: Hospital Regions: Body Storage Capacity**

Region	Number of Hospitals	Morgue Refrigerated Storage Capacity	Temporary On-Site Capacity	Temporary Off-Site Capacity
A	34	61 bodies	152 bodies	103 bodies
B	08	06 bodies	74 bodies	112 bodies
C	47	115 bodies	402 bodies	132 bodies
D	26	10 bodies	117 bodies	315 bodies
E	10	16 bodies	54 bodies	02 bodies
F	15	119 bodies	148 bodies	518 bodies
G	04	03 bodies	06 bodies	00 bodies
H	09	02 bodies	143 bodies	114 bodies
I	05	07 bodies	26 bodies	00 bodies

Each municipality should make pre-arrangements for temporary morgues based on local availability and requirements. The resource needs (e.g. body bags) and supply management for temporary morgues should also be addressed. The types of temporary cold storage to be considered may include refrigerated trucks, cold storage lockers or arenas.

Refrigerated trucks can generally hold 25-30 bodies without additional shelving. To increase storage capacity, temporary wooden shelves can be constructed of sufficient strength to hold the bodies. Shelves should be constructed in such a way that allows for safe movement and removal of bodies (i.e., storage of bodies above waist height is not recommended). To reduce any liability for business losses, municipalities should avoid using trucks with markings of a supermarket chain or other companies, as the use of such trucks for the storage of bodies may result in negative implications for business.

Arenas and ice rinks, where the required temperature of approximately 46 to 38 degrees F or 4 to 8 degrees C can be maintained, are other options for temporary morgues. (Refer to resource list)

Using local businesses for the storage of human remains is not recommended and should only be considered as a last resort. The post-pandemic implications of storing human remains at these sites can be very serious, and may result in negative impacts on business with ensuing liabilities.

### **Capacity of and Access to Vaults**

A vault is a non-insulated storage facility for remains that have already been embalmed, put into caskets and are awaiting burial. Once embalmed or cremated there is no reason to store the bodies. The bodies are either interred or given to the families for final disposition.

In preparation for a pandemic each community should identify the capacity of existing vaults and address access issues for temporary storage. In addition, the need for the creation of new temporary vaults, to meet the increased demand during a pandemic should be addressed.

This temporary vault should be non-insulated, have some security features such as covered windows and locks on doors.

### **Continuity of Operation Plans**

In preparation for emergencies it has become an essential activity for all public and private entities to develop and maintain Continuity of Operation Plans (COOP). Therefore it is recommended that pandemic planning efforts include development of COOP plans. This plan not only would address internal failures and compromises of infrastructure, but will provide guidance to continuing daily activities in the event a large portion of an entities employees are unable to attend work. (See Appendix 1)

### **Death Registration**

Death registration is a local public health/vital records responsibility and each agency has state laws, and regulations, as wells as local administrative practices to register a death. Moreover, there is a distinction between the practices of pronouncing and certifying a death. For example, in some states physicians, nurses, and in some circumstances police and emergency medical

service personnel may pronounce a person dead. In Missouri only physicians, coroners and medical examiners may certify death. In the pandemic situation, with the increased number of deaths, each jurisdiction must have a body collection plan in place to ensure that there is no unnecessary delay in moving a body to the (temporary) morgue.

If the person's death does not meet any of the criteria for needing to be reported to a coroner or medical examiner, then the person could be moved to a holding area soon after being pronounced dead. Then, presumably on a daily basis, a physician could be designated to complete the death certificate.

Funeral directors generally have standing administrative policies that control when they may collect a body from the community or an institution such as a hospital. Evaluation of the current processes and identification of answers should include consideration of the regional differences in resources, geography, and population. This will help speed the process for release and collection.

### **Infection Control**

Infection Control and Occupational Health Guidelines provide general recommendations on infection control for health care facilities and non-traditional sites during a pandemic. However, special infection control measures are not required for the handling of persons who died from influenza, as the body is not "contagious" after death.

Still funeral homes should take special precautions with deaths from influenza.

Visitations could be a concern in terms of influenza transmission amongst attendees, particularly in smaller communities.

It is the responsibility of public health to place restrictions on the type and size of public gatherings if this seems necessary to reduce the spread of disease. This may apply to funerals and religious services. The local public health agency should plan in advance for how such restrictions would be enacted and enforced, and for consistency and equitability of the application of any bans.

Families requesting cremation of their deceased relative are much less likely to request a visitation, thus reducing the risk of spreading influenza through public gatherings.

### **Transportation**

No special vehicle or driver license is needed for transportation of a body. Therefore, there are no restrictions on family members transporting bodies of family members, if they have an official copy of the death certificate. When interstate transportation is provided by a common carrier the body must be embalmed and sealed in a casket as outlined in Missouri statutes.

Transportation of bodies from their place of death to their place of burial in rural and isolated communities may become an issue, especially if this requires air transport. Local pandemic planners should consult existing plans for these communities and determine what changes can be made to meet the increased demand during a pandemic.

## **Supply Management**

It is not the intent of this plan to recommend to funeral directors, that they not order excessive amounts of supplies such as embalming fluids, body bags, etc., but that they have enough on hand in a rotating inventory to handle the first wave of the pandemic (that is enough for six months of normal operation). Fluids can be stored for years, but body bags and other supplies have a limited shelf life. Cremations generally require fewer supplies since embalming is not required. Families having multiple deaths are unlikely to be able to afford multiple higher-end products or arrangements. Funeral homes could quickly run out of lower-cost items (e.g. inexpensive caskets such as cloth and some wooden caskets) and should be prepared to provide alternatives.

## **Mental Health Issues**

Coping with large numbers of deaths represents a key challenge in planning for a flu pandemic. In recent decades, American experiences with deaths have become increasingly medically sterilized with more deaths occurring outside the home and expectations that family will have limited exposure to dead bodies. With the increased numbers of deaths occurring at home in a flu pandemic and the prospect that there may be delays in transportation of bodies due to surge in demand and potential coroner involvement, the emotional impact of these experiences may be more traumatic for many. Particularly if there are disproportionately large numbers of children or younger adults who succumb to the flu, the emotional toll is even greater. If there is a high degree of blood or fluid discharge associated with the deaths, the nature of the death experience and the appearance of the body can be even more distressing for family. These concerns and others will require additional planning for response and recovery efforts associated with any pandemic and especially with highly lethal flu viruses.

The Missouri Department of Health and Senior Services, Pandemic Planning Mental Health and Mortuary Subcommittees have given consideration to these issues and offer the following recommendations for provision of support to those individuals and families experiencing flu-related deaths. The recommendations have been divided into phase-specific recommendations for coping. (See Appendix 2)

## **Special Populations**

A number of religious and ethnic groups have specific directives about how bodies are managed after death, and such needs must be considered as a part of pandemic planning. Different religious groups, and others with specific cultural requirements, have specific directives for the treatment of bodies and for funerals. The wishes of the family will provide guidance, however, if no family is available local religious or ethnic communities can be contacted for information.

As a result of these special requirements, some religious groups maintain facilities such as small morgues, crematoriums, and other facilities, which are generally operated by volunteers. Religious groups should be contacted to ensure these facilities and volunteers are prepared to deal with pandemic issues. Religious leaders should be involved in planning for funeral management, bereavement counseling, and communications, particularly in ethnic communities with large numbers of people who do not speak the official languages.

## **Pandemic Periods and Phases**

This plan recognizes the World Health Organization's (WHO) Pandemic Periods and six (6) phases of pandemic influenza as the standard response paradigm. Planning factors listed below are related to each phase beginning with phase 4. Present status as of April 2006 is phase 3. The phases should be considered operational time frames in which LPHA personnel will carry out duties outlined in the pandemic plan. Note that it is possible that pandemic phases could be skipped over if the disease moved quickly.

### **Interpandemic Period**

**Phase 1:** No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is low.

**Phase 2:** No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial threat of human disease.

### **Pandemic Alert Period**

**Phase 3:** Human infection(s) with a new subtype, but no human-to-human spread, or only rare instances of spread to a close contact.

**Phase 4:** Small cluster(s) with limited human-to-human transmission, but spread is highly localized, suggesting the virus is not well adapted to humans.

**Phase 5:** Large cluster(s) but human-to-human transmission still localized, suggesting that the virus is becoming better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).

### **Pandemic Period**

**Phase 6:** Pandemic: increased and sustained transmission in the general population.

## **Pandemic Response According to Pandemic Periods and Phases**

Because the present Missouri Department of Health and Senior Services (DHSS) Emergency Operations Plan covers most of the necessary response activities, DHSS looks at the pandemic plan as complementary to the DHSS Emergency Operations Plan and refer to the relevant annexes whenever necessary. On going maintenance will include an updated assessment of available and needed resources.

Due to the current world situation and epidemiological finding we are at Pandemic Alert Period: phase 3. Because of this, the following outline will begin with Pandemic Alert Period: Phase 4.

### **Phase 4**

- Coordinate with Coroner and Medical Examiner on support for influenza-related preparations. (Annex J, Mass Fatality Management)



- Work with County Coroner/Medical Examiner and Mortuary Service providers to review resources and evaluate need for activation of local Emergency Operations Plan (EOP) and local Mass Fatality Plan.
- Share event related Health Alert information and updates with County Coroner/Medical Examiner and Mortuary Service providers.
- Review mass fatality/mortuary affairs related public information messaging templates for most current and accurate information.
- Coordinate mass fatality/mortuary affairs related public information messaging with DHSS Public Information Officers (PIO).

#### **Phase 5**

- Work with County Coroner/Medical Examiner and Mortuary Service providers to locate resources in the community to meet unanticipated needs and issues.
- Share event related Health Alert information and updates with County Coroner/Medical Examiner and Mortuary Service providers.
- Coordinate mass fatality/mortuary affairs related public information messaging with DHSS PIOs and Joint Information Center (JIC).

#### **Phase 6**

- Continue work with County Coroner/Medical Examiner and Mortuary Service providers and Emergency Medical Departments (EMD) on mass fatality needs and resources; and assist with obtaining and establishing alternate morgue sites as required.
- Share event related Health Alert information and updates with County Coroner/Medical Examiner and Mortuary Service providers.
- Coordinate mass fatality/mortuary affairs related public information messaging with DHSS PIOs and JIC.

### **Resources**

The following data sets will be added to this plan as a linked resource through the Geographic Information System (GIS) as they are completed.

- Missouri Cemeteries
  - Data compiled from:
    - US Geological Survey-GNIS
    - Missouri Department of Economic Development –Professional Registration: Cemetery Registration
      - Endowed
      - Non-Endowed
      - Not-for-profit
      - Municipal
- Missouri Parks
  - Data compiled from:
    - US Geological Survey-GNIS
- Missouri Ice Rinks/Arenas

- Data compiled from:
  - Internet Search
- Missouri Licensed Funeral Homes
  - Data compiled from:
    - Missouri Department of Economic Development –Professional Registration
- Missouri Licensed Crematoriums
  - Data compiled from:
    - Missouri Department of Economic Development –Professional Registration
- Missouri Coroners and Medical Examiners
  - Data compiled from:
    - Missouri Coroner and Medical Examiner Website
- Missouri Licensed Funeral Directors
  - Data compiled from:
    - Missouri Department of Economic Development –Professional Registration
- Missouri Licensed Embalmers
  - Data compiled from:
    - Missouri Department of Economic Development –Professional Registration

## **State Plans**

Current Missouri state plans include the State of Missouri Emergency Operations Plan, Annex T – Mortuary Services; the Missouri Department of Health and Senior Services Emergency Operations Plan, Annex K.1.9 – Mass Fatality Management; and the Missouri Department of Health and Senior Services Pandemic Plan, which this annex is a part.

Currently, the existing State of Missouri Annex T – Mortuary Services plan outlines response actions based in part on an earthquake along the new Madrid Seismic Zone as being the potential worst-case scenario. However, these plans do not take into consideration the long period of time associated with the “waves” that will occur during a pandemic event.

The Missouri Department of Health and Senior Services Emergency Operations Plan, Annex K.1.9 – Mass Fatality Management outlines the basic response actions to be taken by the department during a mass fatality/mortuary affairs event. (See Annex K.1.9 – Mass Fatality Management for specific details)

The Missouri Department of Health and Senior Services Pandemic Plan of which this annex is a part, outlines the pandemic specific response actions to be taken by the department during a mass fatality/mortuary affairs event.

**Additional References**

1. Canadian Pandemic Influenza Plan, “Guidelines for the Management of Mass Fatalities During an Influenza Pandemic”, February 2004
2. Southwest Public Health District, Albany, GA.; “Pandemic Influenza Response Plan, Mass Fatality Plan”, June 15, 2006.

**Statutory Citations**

1. Missouri Revised Statutes, Chapter 58, Coroners and Inquests.

## **Appendix 1: Continuity of Operations**

### **Essential Vital Record Needs & Functions in Mass Fatality Event**

---

The following is intended to provide suggestions in the development of Continuity of Operation (COOP) plans for local public health / vital records in the event of mass fatalities resulting from major disasters or a pandemic.

A COOP plan should include recognition of the need to relocate operation to another location. This need may occur from either facility compromise or a need to function out of a satellite location. Action should be taken to identify possible pre-designated sites. (Remember: sites utilized for other activities such as Mass Care and Point of Distributions (PODs) have similar characteristics, so beware of the same locations being designated with multiple roles.) The primary and back-up sites should include, or have available, equipment and materials necessary to operate until primary site is functional again. Copies of the COOP plan should be available at designated primary site and any pre-designated alternate site. Listed below is a list of basic office supply items that should be considered for a vital records go-kit.

#### **Supplies**

- Supply of Standard Certificate of Death
- Supply of Computer Birth/Death Certificates
- Next-of-Kin Interview Forms
- Copier (generator)
- Carbon paper or Carbonless paper
- Hand Seal
- Certification Statements
- Registrar's signature stamp
- Date Stamps
- Black ink pads, Black ink
- Black ink pens, #2 black lead pencils
- Plain white paper
- Steno pads/log
- Map of Missouri
- Reference book of "Where to Write for Out-of-State Vital Records"
- Supply of birth/death applications
- Basic office supplies (staplers, staples, rubber bands, paper clips, etc.)
- Envelopes (window, plain, brown)
- Receipt books
- Lock box
- Tissue/Kleenex, paper towels
- Cleaning materials (Soap/hand wipes, bleach, alcohol)
- First Aid Kit
- Camera and film
- Flashlight and Batteries

#### **Primary Vital Records Duties**

- Registration

- Issuance of certified copies
- Fees (collection, security, etc.)
- Training (non-vital records personnel to assist in an emergency)

### **Registration**

- Bureau of Vital Records will assist as assigned by the medical examiner/coroner in the collection of information pertaining to the victims for completion, processing and registration of death certificates.
- State Vital Records staff will assist local registrars in performing same functions as needed.
- Staff will assist in compiling list of missing persons, when appropriate.
- Assigned Vital Records personnel will be responsible for maintenance and security of all completed death certificates.
- Certificates will be processed and registered as soon as reasonably possible.
- Certificates registered with the local registrar will be maintained and secured at that facility until such time as they are able to forward originals to the State office.

### **Issuance of Certificates**

- Assigned Vital Records personnel will be responsible for issuance of certified copies of death certificates for victims of mass casualties. Other requests will be processed according to established procedures if functional at primary site.
- At primary site, if mainframe system is unavailable for daily operations to issue computer certifications, applications for certified copies may be taken and mailed at the earliest possible convenience.
- In an extreme situation, if phone system is available, local Vital Records staff may call to verify certificate availability before accepting applications. State staff will conduct manual search and call local area back.
- Suspension of 24-hour issuance of death certificates is effective in major disasters. Local registrars may continue to issue certified copies for additional certificates if possible upon request.
- In the metropolitan areas where file copies are maintained for that location, certified copies of exact duplicates may be issued upon request, if possible.

### **Fees**

- If primary site is not functional, two (2) assigned Vital Records personnel should be responsible for securing fees, signing and issuing receipts, and balancing. Both will balance and sign balance sheet.
- Local Registrar will be responsible for securing fees taken in for their facility.
- Refunds should be processed according to established procedures as soon as reasonably possible for requested records that are not available.

### **Training**

- A resource manual that includes basic training should be accessible if vital records staff is limited. Functions that could be performed by non-vital records staff are:
  - Review of certificates for completeness and accuracy

- Duplicate copies from copier
  - Certify documents
  - Mail certificates
  - Number and date stamp certificates
  - Answer phone
  - Entries on certificates should be reviewed for blanks and/or inconsistencies, (such as age not calculated to agree with date of birth on death certificates, or no age given but a date of birth is)
  - Guide sheet should be available with information as to how to obtain copies including fees
  - Guide sheet should be available as to how to review certificates
  - Reference list should be available with out-of-state vital records offices, other local registrars, etc.
- To certify a death certificate:
    - Duplicate original certificate on copier. Certificate may need to be duplicated and reduced and the copy used in certifying document. Certification statement is placed on the bottom covering the embalmer's statement. Certificate is embossed at bottom over certification statement.
    - Emboss bottom of duplicated certificate by inserting between metal die for hand seal and impress. Since embossers may vary, instructions should be provided to use embosser model.
    - Mail: Computer certificates should be folded in three parts with customer address showing to be placed in window envelopes. If window envelope is not used customer address should be handwritten on legal size envelope for mailing.

## Appendix 2: Mental Health Response in a Pandemic Flu Outbreak Recommendations for Supporting Families and Businesses Coping with Death

---

### Coping With Death And Dying At Home

#### Pre-Event

##### Family Preparedness

- Importance of plans for minors, elderly, persons with disabilities if caretaker falls ill or dies
  - Include powers of attorney, end of life planning
  - Designation of beneficiaries, guardians, trust administrators
  - Redundancy of designated parties important in pandemic, give specific guidelines
  - Advance discussions with children, elderly, people with disabilities (PwD)
    - Preparatory without being scary
    - Involve in choices, especially if independence of elderly, PwD will be threatened
  - Consider other benefit transition issues, death benefits, health insurance coverage, etc.
  - Designate alternates for banking and safety deposit access, as appropriate
- Fact sheet regarding what to expect in terms of emotions when dealing with deaths occurring in home and coping with body
- Planning for pets
- Unique aspects of preparedness to address include extended shelter in place and infrastructure failure potential (power outages, communications failures, etc.)
  - Plan for checking on each other, especially those who live alone, including layers of redundancy since some may be ill or unable to participate
  - Establish signals, i.e. flags or colored sheets for designating illness, need supplies, etc.
  - Multiple languages for planning information
  - Importance of understanding we may be putting children and adolescents in adult roles if caregivers fall ill or die so materials need to be accessible and tailored to younger age groups potentially depending on mortality by age groups

##### Emergency Kit Contents

- Copy of will, power of attorney, name and contact information for attorney, executor with phone numbers plus location of other important documents
- Copy of written funeral arrangements, including funeral/burial policies
- Special religious or cultural instructions regarding last rites, funeral, burial
- Thermometer and fever reducer
- Primary care physician contact information plus medication and pharmacy information
- An informational brochure that addresses:
  - Supplies if someone dies
  - Instructive guidance for handling a death in home
  - Information sheet containing medical history information, current medications, next-of-kin contact information (i.e. spouse, children, parents, siblings).

- Possible development of form to download to complete in advance to expedite process for those who come to get the body
  - Emotional coping and resources
- Special hotline just for dealing with this issue - local or state #.

### **Systemic Planning**

- Convene work groups to look at cultural differences in death, burial and grief rituals and how to accommodate in mass fatality pandemic flu scenario
- Develop public information materials that include information about handling of bodies including temporary burials if needed, process for reclaiming bodies for burials and reburials, information about getting death certificates, contact information to learn more, information about release of bodies, etc.
- Develop checklists related to end of life planning if CDC does not
- Explore adaptation of Family Assistance Center models for use in pandemic flu event

### **During Pandemic**

- Address emotional aspects of a positive death experience (learn from hospice and other cultures) regarding rituals, communication, support and assistance during the period when death is apparent and imminent and after someone has died that anticipate the following:
  - How to help children and others in household cope
  - Checklist of when to seek professional medical help if available as a preventive strategy for survivor guilt and blame
  - Checklist for dealing with dead bodies
  - Information regarding what to do if someone dies in home from autopsy, law enforcement point of view (such as move body or not, make a note about time of death, etc.)
  - Inform regarding impact of autopsy, death certificate on insurance, workers comp
  - Importance of telling people what not to do (example: do you want people to bring bodies to the hospital if no one can pick up in a reasonable period and what is a reasonable amount of time?)
  - Address issues of health and contagion related to dead bodies
  - Instruct regarding temporary burial if adopted as public policy
  - Dealing with stress, survivor guilt
  - Self care tips for caregiver's physical and emotional health
  - Teleconference funerals with plans for later memorial activities
  - Encourage people to write personal obituaries, gather meaningful objects, write down meaningful history, keep a journal
- Hotline specifically tailored to death issues, staffed by people prepared to deal with issue (call center can be remote location where staffing is not an issue or calls can be routed to people working from home)
  - Call center staff/volunteers should be trained in grief & bereavement support, traumatic grief and cultural competence
  - Need sensitivity to suicide risk issues and training on assessment and handling calls
  - Need to be aware of coroner guidance and funeral homes in area that are functioning and can accept bodies



- Should have fact sheets to send by email or mail to support people with death, grief issues
- Partner with faith communities and funeral industry for consistency of message, provision of emotional support and dissemination of factual information about bodies and grief
- Encourage people to keep a journal of symptoms and course of illness as well as time of death if known
- Encourage volunteer activities when possible that are safe and do not promote contagion such as:
  - Delivery of food and other items with no personal contact (i.e. drops)
  - Wellness checks for neighbors and family
  - Planned, routine checks
  - No show at expected location (work, scheduled activity, etc.)
  - Pets unattended or howling
  - Unusual smells
  - No activity seen or no affirmative evidence of life for some period of time
  - Wellness checks & pet care for animals whose owners are hospitalized or have died
- Guide families to use “flu recovered” persons who now have immunity to assume responsibility for those aspects of life requiring exposure to contagion being careful not to use children to take on adult responsibilities, especially if it involves death
- Educate families about the benefit of children remaining with parents even during very stressful events such as death since experience teaches us that separation from parents can have greater long term negative outcomes than exposure to trauma in an intact family
  - Decision making that balances risk of contagion and separation risks as well as exposure to death
  - Fact sheet addressing how to prepare and cope with death experiences with kids
  - Educate families about:
    - Trading off care giving to provide rest and stress breaks when safe
    - Safe practices to minimize risk to caretakers when caring for an ill family member
  - Minimize exposure to media

## **Recovery**

- Plan for and encourage appropriate memorials, ceremonies, & reburials as necessary that are consistent with cultural and religious practices of the deceased
- Anticipate increased mental health needs and supports such as but not limited to:
  - Support groups for grief & bereavement
  - Suicide prevention activities
  - Relapse prevention for substance and gambling disorders
  - Family support for increasing numbers of blended families after the flu outbreak due to adoption, substitute caregivers, and remarriage
- Promote social re-connection and community cohesion when safe
- Prepare for anniversary events and future threats such as additional waves of illness or other contagious illnesses
- Anticipate surge in:
  - Funerals

- Weddings
- Family reunions, graduations and other milestones
- Requests for marriage, death and birth certificates, some expedited requests
- Applications for social security benefits, life insurance, workers comp and other death benefits
- Moves and relocation in housing and school attendance
- Bankruptcies and home foreclosures
- Job change
- Increased mental health risks due to:
  - Survivor guilt as a source of stress and anxiety
  - Domestic violence
  - Economic disruption and job loss
- Anticipate long term health and disability burdens for:
  - Physical health (limited endurance, compromised lung function, etc.)
  - Mental health (depression, anxiety, Post Traumatic Stress Disorder, etc.)

## **Coping With Illness & Death At Work**

### **Pre-Event**

- Conduct extensive Continuity of Operation / Continuity of Government (COOP/COG) planning including but not limited to:
  - Update notification and contact lists for all employees
    - Emergency situations
    - Beneficiary designations
  - Re-evaluate policies for:
    - Workers comp
    - Death notification if people die while at work or traveling for work
    - Death benefits
    - Funeral leave
    - Rapid replacement of staff
    - Functional cross training of staff
  - EAP support for grief and death issues associated with:
    - Coworker deaths
    - Family deaths
    - Caregiver stress
- Conduct pandemic flu or other exercises that anticipate death & grief issues as part of the scenario to increase virtual rehearsal, emotional readiness and to improve COOP planning and prepare employees particularly
  - Human Resources staff
  - Management

## **During Pandemic**

- Establish leadership and implementation responsibility for functions with possible surge in activity
  - Being notified that employees have died and handling transition from active payroll to death benefits
  - Death notification if people become ill or die at work site
  - Appropriate recognition and employer outreach related to illness and deaths of employees and family members

## **Recovery**

- Plan for appropriate workplace memorials and commemorative activities upon return to work
- Increased stress and anxiety associated with:
  - Increased workload due to illness and death
  - Increased training burden for employees new to expanded responsibilities
  - Survivor guilt for assuming positions held by colleagues who died
  - Reorganization
  - Threatened closure of business due to economic impact of pandemic
- Establish referral methodologies and easy access to mental health or support services related to:
  - Grief and bereavement issues
  - Depression
  - Substance use or relapse prevention
  - Suicide prevention

## **MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES (DHSS)**

### **All-Hazards Communications Plan**

*Specific references to an Influenza Pandemic are noted throughout the document.*

#### **ANNEX K.1.6**

#### **PUBLIC INFORMATION**

##### **INTRODUCTION**

The Department of Health and Senior Services (DHSS) public information staff will coordinate and deliver risk communication and public health information during a public health emergency, bioterrorism attack or influenza pandemic. These operations will be accomplished in close coordination with the State Emergency Management Agency's (SEMA) public information officer and/or other lead public information officers in accordance with state and federal emergency plans as well as with local public health agencies (LPHAs).

Overall objectives:

- To gain public confidence by providing information that is accurate, timely, and pertinent.
- To prevent public panic.
- To direct public action.
- To meet the needs of the news media.
- To coordinate with other agencies involved in responding and providing information to the public.

##### **PLANNING ASSUMPTIONS**

- Crisis and emergency risk communication is a vital component of public health and emergency response.
- Emergency messages will need to be communicated to a highly diverse U.S. population.
- Coordination of message development and release of information among federal, state and local health officials is critical to help avoid confusion that can undermine public trust, raise fear and anxiety, and impede response measures.

##### **PLANNING ASSUMPTIONS (FOR PANDEMIC INFLUENZA)**

- Public health response officials would need to communicate messages to the public asking them to take particular action and refrain from other actions (e.g., engage in cough etiquette and refrain from gathering in groups).
- An influenza pandemic of a highly pathogenic strain that occurs in our technologically advanced society will severely tax the ability of public health crisis response officials to provide accurate, timely, consistent, and credible information to the U.S. populations.
- When health risks are uncertain, as likely will be the case during an influenza pandemic, people need information about what is known and unknown, as well as interim guidance to formulate decisions to help protect their health and the health of others.
- An influenza pandemic will generate immediate, intense and sustained demand for information from the public, healthcare providers, policy makers, and news media.
- It is important that individuals and families take an active role in getting ready for an influenza pandemic. The best way to prepare is to learn, plan, and protect. DHSS developed

the booklet, “Preparing for Pandemic Flu: A Community Guide,” that provides the steps you can take now to be better prepared. The more prepared we are now, the more lives that can be saved in the future. To view the guide, go to [http://www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html).

#### **ADDITIONAL INFORMATION**

- The DHSS All-Hazards Communications Plan is tested and updated on an annual basis, at the minimum.
- Appendices to the DHSS All-Hazards Communications Plan (see Table of Contents document; full document available upon request) include:
  - Specific Event Communications Plans
  - Call-Down Lists
  - News Release Distribution Procedures
  - Media Lists
  - Hotline
  - Mobile emergency communication equipment
  - Media/news Release Forms
  - Translation
  - Resources/Contact Lists
  - Go-Kits
  - CDs
- The following comprehensive key messages, radio scripts and fact sheets are a component of the DHSS All-Hazards Communications Plan (see Table of Contents document; full document available upon request):
  - Biological
  - Chemical
  - Earthquake
  - Feeding sites and shelters
  - State and local sample key messages
  - Isolation/quarantine and shelter in place
  - Mental health
  - Natural disasters
  - Pandemic influenza
  - Radiological
  - Strategic National Stockpile (SNS)
  - Terrorist attack
  - Radio scripts
  - Fact sheets
  - Ready in 3 resources
- Procedures for approval and dissemination of Health Alerts, two-way communications, Public Health Information Network (PHIN)-compliant information systems, command and control procedures, DHSS Department Situation Room (DSR) roles and responsibilities, interagency coordination of preparedness response, mobile command center operations, and redundant communications systems are included in the DHSS Department Situation Room (DSR) Procedures Manual, DHSS Emergency Response and Terrorism Plan, or the Information Technology Services Division (ITSD) Emergency Response Plan.

## **EMERGENCY RESPONSIBILITIES**

DHSS has formed a Public Information Primary Response Team, which includes the Chief, Office of Public Information (OPI); the Public Information Administrator and Public Information Coordinator, Center for Emergency Response and Terrorism (CERT); the Public Information Administrator and two Public Information Coordinators, OPI; the Public Information Administrator in the Division of Community and Public Health; and office support staff in OPI and CERT. This response team meets routinely to review and test the communications plan, conduct emergency equipment drills, and participate in the statewide and department wide exercises. The PIO team has been trained in Incident Command Structure and will follow the appropriate procedures.

The DHSS Public Information Response Team will participate in all State Emergency Operations Center (SEOC) exercises and DHSS Department Situation room exercises, at a minimum of two per year. The State Emergency Management Agency (SEMA) activates the SEOC for all state exercises, all nuclear power plant exercises, and has activated to support 13 Presidential Disaster Declarations and three SBA Disaster Declarations since 2006.

Two PIO team members are trained and may be assigned to the State Emergency Operations Center (SEOC) and will work in the Joint Information Center (JIC), which would be established and coordinated by the State Emergency Management Agency, Department of Public Safety. Six PIO team members are trained and may be assigned to the DHSS Department Situation Room (DSR) and will work closely with the DHSS PIOs in the JIC to provide key messages, draft news releases, and follow-up on requests. Monthly calls and scheduled meetings and trainings are held with the DHSS and Regional PIOs to develop working relationships and coordinate activities. Monthly calls are held with other states in HHS Region VII.

The lead DHSS public information officer (PIO), in coordination with other state and federal officials, will:

1. Use the media, outreach and other communication systems to provide risk communication and to inform and instruct individuals, families, businesses, and industries about health and medical factors involved in the emergency.
  - Fact sheets and key messages, which can be used in preparing news releases, will be maintained by the CERT public information administrator.
  - The DHSS Public Information Response Team and DSR Coordinator will oversee and coordinate with appropriate programs to staff the 24-hour hotline.
    - The Division of Community and Public Health's Public Information Administrator and Public Information Coordinator (backup) will work with a DSR Duty Officer and coordinate the frontline volunteers response. A PIO will work in the calling center and be responsible for message development, serving as liaison with DSR and nurses hotline, and tracking calls.
    - The Nurse Hotline Coordinator is point of contact and will lead the nurses hotline volunteers.
  - The lead PIO will ensure that the department uses its web site to provide important health and safety information for targeted groups. Groups will include the general public, health care providers, first responders, etc. Information posted to the site will include news releases, fact sheets, and other pertinent health information.

- The lead PIO will coordinate with local public health agencies, other state and federal agencies, and cities/states across state lines to ensure that consistent messages are being delivered.
2. Ensure the accuracy, timeliness and appropriateness of all health and medical public information before its release to the media.
    - No DHSS Region, District Office, Division, Center, or Unit will independently release bioterrorism-related information (news releases, fact sheets, etc.) without approval of the Director of DHSS, his/her designee, or the DHSS public information officer-in-charge.
  3. Respond to and record media requests for health or medical information.
  4. Determine whether to schedule media briefings or news conferences. If warranted, arrange for daily or twice-daily media briefings.
  5. Update DHSS staff and local public health agencies, including the emergency response regional PIOs, with messages released to the media.
  6. Update the department director or his/her designee daily on public information/risk communication activities.
  7. Maintain a list of spokespersons and subject matter experts from DHSS and other stakeholders. (For *pandemic influenza*, see Attachment A.)

## **Organization:**

### **1. Primary Public Information Responsibility**

- The chief of the Office of Public Information (OPI) is the lead person who will make staffing decisions (including shifts and locations) and will direct how public information resources will be utilized. If that person is not available, the next person(s) in succession will be responsible for these decisions.
- The call-down for public information staff during a disaster is included in the appendices.

### **2. Public Information Staffing**

- A list of all DHSS staff (including regional contacts) who will serve as spokespersons will be maintained by the CERT public information administrator. This staffing list will be reviewed annually and will include after-hours contact information. (See list in appendices.)

### **3. Staff Assignments**

- The lead DHSS PIO may deploy members of the public information staff to obtain, evaluate and coordinate available data and information at these locations:
  - DHSS Department Situation Room (DSR)

- State Emergency Operations Center (SEOC)
  - DHSS Hotline Calling Center (ITSD Training Room)
  - Strategic National Stockpile distribution or dispensing sites
  - Regional or district offices and/or the site of the bioterrorism event.
  - The need for clerical support will be evaluated and assignments made accordingly.
  - *For pandemic influenza*, PIOs are prepared to work from home.
- The DHSS lead PIO will offer support to affected local public health departments. If possible, the state will provide a PIO to be on-site at the local agency.
- The lead PIO will designate the DHSS spokesperson for the State Emergency Operations Center, as well as any other Joint Information Centers (JIC) as may be established during emergency response operations.
- The lead PIO and/or the public information designee will participate in all briefings and daily staff updates.

**Public Health Information Network (PHIN):**

- The Information Technology Services Division (ITSD) working at the DHSS has been and continues to implement capable, interoperable information systems that support public health preparedness that are compliant with PHIN. The IT Director at the Department of Health and Senior Services jointly with DHSS Management are responsible for ensuring that all information systems that support public health activities are PHIN compliant. All information systems used at the Department of Health and Senior Services are consistently being evaluated for PHIN compliance.



**ANNEX K.1.6**  
**PUBLIC INFORMATION**  
**STANDARD OPERATING PROCEDURES**

**1. Active Duty Roster List**

- a. The chief of the Office of Public Information is the lead person who will make staffing decisions (including shifts and locations) and will direct how public information resources will be utilized. If that person is not available, the next person(s) in succession will be responsible for these decisions.
- b. Staff will be assigned to 12-hour shifts (3 days in succession) and assigned to the DSR, SEOC, DHSS Hotline Calling Center, Strategic National Stockpile distribution or dispensing sites, regional or district offices and/or the site of the bioterrorism event.
- c. The most current call-down list of public information staff and support staff is included in the appendices and the public information “go-kits.” It is expected that each location may need a Public Information Team (which would include a decision-maker, trained public information staff person and support staff). The lists will be updated quarterly, or as needed, by the CERT public information administrator.
- d. If an event occurs and/or communication is disrupted, all individuals on the Public Information call-down list need to check with the DSR (800-392-0272) within two (2) hours of event to check schedule. The two members of the DSR/SEOC Team 1 must report to the DSR immediately in the event of an emergency
- e. The CERT public information administrator will serve as the team leader for the DSR public information workstation. If that person is not available, the next person(s) in succession will take over those responsibilities.
- f. For *pandemic influenza*, staffing and assignments will be adjusted according to the pandemic phases. Staff are prepared to work from home, if needed.

**2. Public Information “Go-kits”**

- a. The go-kits will include the communications plan, appendices and the tools needed to work off-site.
- b. “Go-kits” will be prepared and kept in four locations in Jefferson City and each of the DHSS district offices. A list of the go-kit locations is included in the DHSS Public Information appendices, which are maintained and available from the CERT public information administrator.
- c. For *pandemic influenza*, it may be necessary for members of the DHSS Public Information Primary Response Team to work from home. Laptops and go-kits are available to continue operations off-site.

**3. Public Information Distribution**

(news releases, public health statements, fact sheets)

- a. PI staff on duty will draft news releases from information provided by program staff, verify information and obtain approvals. Approval for all outgoing public information must be obtained from the DHSS director, his/her designee, DSR commander or the DHSS Public Information Officer-in-Charge. The DSR will coordinate public

- information with the DHSS PIOs and Joint Information Center at the SEOC. A template for drafting news releases will be provided in the DHSS Public Information appendices, which are maintained and available from the CERT public information administrator.
- b. Staff will ensure that messages provided to the public are consistent, coordinated and timely; and shared with appropriate state and local partner agencies.
  - c. The public information officer-in-charge will determine the distribution procedures that best fit the situation. Directions for sending news releases by email and fax are included in the appendices.
    - ❑ Distribution to major media (List is available in the DHSS Public Information appendices; send by email and fax.)
    - ❑ Distribution to regional media (The database can be used to select and sort regional media; will need to send by fax.)
    - ❑ Distribution to all media (A hard copy and electronic file of the media list and instructions for sending releases by e-mail and broadcast fax will be provided in the appendices.)
    - ❑ Distribution to special needs populations database, if applicable. (See instructions in appendices.) Consult with DHSS Special Needs Liaison for further direction.
    - ❑ Distribution to ethnic/language-specific media. If needed, use translation procedures to translate release for Hispanic media entities.
  - d. The completed news releases will be posted on the DHSS web site, with the assistance of the website staff in the DHSS Information Technology Services Division (ITSD). The website staff are available through a call-down list 24-hours/7 days a week.
  - e. News releases will be distributed to local public health agencies, partner agencies, appropriate DHSS staff and others, as applicable.
  - f. All news release are shared with local public health agencies and the Regional PIOs in an effort to coordinate consistent messages. The Regional PIOs also share their news releases with DHSS.
  - g. If phone lines are down, PI staff will use whatever means are available to contact media and disseminate information. This could include satellite phones or HAM radios, which are available at DHSS along with trained staff. See Portable Emergency Communications Equipment section in this document or the DHSS DSR Manual.
  - h. DHSS will work with local public health agency administrators, Missouri Hospital Association, State Emergency Management Agency, Missouri Dept. of Elementary and Secondary Education, Missouri Chambers of Commerce, and other key partners to disseminate needed information to appropriate audiences. This is tested through annual exercises and DSR activations to disasters.
  - i. DHSS will continue to work with main media on routine basis to provide public health updates and establish working relationships.
  - j. DHSS will work with Special Needs Liaison in the Center for Emergency Response and Terrorism, who will be coordinating needs of special populations to DSR to ensure appropriate public information is provided to special populations.

#### **4. Logging Calls**

- a. Media calls can be logged using the Public Information media inquiry form, which is in the DHSS Public Information appendices.
- b. Forms of completed media inquiries will be kept in folders by date/time received.
- c. Forms for the media inquiries that need follow-up will be kept in a pending folder.

#### **5. Public Information Activities Status**

- a. All news releases (completed/sent, pending) will be saved in the shared network drive at the DSR Public Information workstation. Hard copies of the releases should be placed in the in the completed or pending file folders.
- b. Additional support staff will be requested from the department for answering calls from the media.
- c. The PI secondary response team and/or PI support staff can be called upon to monitor news during emergency through newspapers, radio, television and website media.
- d. The PI secondary response team and/or PI support staff will ensure that all e-mail received through the DHSS website is answered.

#### **6. Department Situation Room (DSR)**

- a. Emergency Checklist - When the DSR is first activated and at the beginning of each shift, DSR team members will review the PI Response Team emergency checklist for the public information workstation. This list is included in the front cover of the communications plan binder in the DSR.
- b. The DSR PI team leader will coordinate schedules and manage continuity of PI stations in DSR.
- c. Each DSR team member will keep the DSR Timeline document up-to-date on the DSR computer. The Timeline will include public information activities, news release updates, pending issues, etc. and will serve as the major link between shifts.
- d. All additions to the emergency web pages will be routed through the DSR PI workstation for review before submitting to the website managers.
- e. Email and phone communications between DHSS PIOs and the Regional PIOs will be initiated as soon as the DSR is activated and continue throughout the emergency.

#### **7. News Conferences**

- a. The DHSS Wild Pine Conference Room, 930 Wildwood, has been designated as a news conference site for use during emergencies. A podium, backdrop, and additional microphones are designated for use.
- b. A report from each news conference indicating information such as date held, speakers, attendees, questions and answers, talking points, handouts, etc. will be kept in the PI Activity Folder. The report forms will be provided in the appendices. News conferences will be tape-recorded, and the tapes marked with date and time.
- c. News conferences/briefings held on-site of event will be reported to the DSR.

#### **8. Media List**

- a. A hard copy and the electronic Microsoft Access file (on CD-Rom) of the media list will be kept in each PI "go kit." The database lists the media by county and includes

- phone numbers, fax numbers, e-mail addresses (if provided by the media) and addresses.
- b. The media database is updated on an ongoing basis by the Office of Public Information. An updated list/disk will be provided to each “go kit” on an annual basis, or as needed.
  - c. A list of the Top 50 major media that should be contacted during an emergency will be included in the appendices and “go kits.” This list will be used when it is not feasible to send news releases/advisories to all media.
  - d. A Special Needs Population Database is maintained by the CERT public information coordinator. A copy of the list and instructions are included in the appendices.

**9. Portable Emergency Communications Equipment**

- a. Public Information Emergency Communications Equipment and the OPI mobile trailer will be kept up-to-date and ready for use in short notice.
- b. Decisions on when and where to deploy the OPI mobile trailer during an emergency will be made by the DHSS Public Information Officer-in Charge, in consultation with the DSR Commander. The decision will be made after assessing media needs and determining the best way to communicate to the public in the affected areas of the state.
- c. The Office of Public Information (OPI) video production specialist or specially trained staff with technical experience and a public information coordinator will accompany the equipment on-site; backup staff will be designated and will report when needed. The mobile unit’s main function will be to accompany and support the DHSS spokesperson to the designated area of the state.
- d. The OPI mobile trailer is equipped to provide back-up communications anywhere in the state with satellite telephone, Internet and data transmission capabilities and generator equipment. Instructions are included in the go-kits on using the laptops, satellite phones, and other equipment when electricity and phone service are not available. The keys to the mobile trailer are available from the OPI office manager or DHSS video production specialist.
- e. CERT’s blue truck is equipped with a trailer hitch to pull the OPI mobile trailer, or a vehicle would need to be rented to pull the trailer.
- f. The Public Information response teams will hold quarterly drills using the equipment. The CERT public information coordinator maintains the equipment list and locations.

**10. Website**

- a. News release, fact sheets, health alerts and other pertinent health information will be posted on the website on a timely basis.
- b. A call-down list for web site staff is included in the appendices.
- c. All uploads to the DHSS website during an emergency situation will be routed through the DSR Public Information workstation.
  - When the DSR is activated, the Community Management workstation will be using a special LPHA emergency web page. The PIO station will approve any DHSS information for posting to this web page and then forward to the web site staff. That will ensure consistency with the department's web page. The community management workstation will be monitoring the webpage and

answering questions from the LPHAs. Only information that does not require immediate response will be posted to the LPHA page.

- d. Web site templates have been developed by the ITSD staff and ready-to-use during an emergency.
- e. During an emergency, DHSS staff will be reassigned duties to respond to e-mail received through the DHSS website and monitor residents' concerns and questions.

## **11. Translations**

- a. For printed materials, DHSS will use a statewide contract for translating messages and materials into other languages. Instructions and a list of vendors are included in the appendices.
- b. DHSS will use state translation contractor to translate news releases, if needed, to send to language-specific media.
- c. For phone calls, the DSR Duty officer will transfer non-English speaking residents to LanguageLine. See the DSR Duty Officer procedure manual.
- d. Top 5 languages spoken in Missouri: 1. Spanish; 2. Bosnian; 3. Korean; 4. Vietnamese; 5 Somali. For specific language needs in metropolitan areas, see summary report prepared by Public Information Administrator or contact the Regional PIOs.
- e. General fact sheets on what to do before, during or after an emergency are currently available in Spanish, Bosnian, Vietnamese, Korean and Somali on the DHSS website ([www.dhss.mo.gov](http://www.dhss.mo.gov)). For additional materials to be translated, DHSS will use the statewide contracts in place.
- f. The Ready in 3 Family Safety Guide and Pandemic flu booklet are available in Spanish and Bosnian and in Braille. The emergency threats brochure is printed in Spanish. For additional materials to be translated, DHSS will use the statewide contracts in place.

## **12. Hotline Activation**

- a. The DSR coordinator will activate the expanded hotline (800-392-0272) and call in additional volunteers. Ten additional phone lines are set up in the ITSD training room, 920 Wildwood, for immediate use.
- b. Hotline messages will be developed by the PI response team. The DSR PI staff will provide talking points, draft news releases, fact sheets and timeline information to the Hotline PIO Coordinator, who will prepare the script for the frontline volunteers. The key messages should be approved by the DSR commander or the DHSS Public Information Officer-in-Charge.
- c. The hotline expansion/activation flow chart and roles and responsibilities are included in the appendices.
- d. The Division of Community and Public Health's Public Information Administrator and Public Information Coordinator (backup) will work with a DSR Duty Officer and coordinate the frontline volunteers response. The Hotline PIO Coordinator will work in the calling center and be responsible for message development, serving as liaison with DSR and nurses hotline, and tracking calls.
- e. The DSR Public Information workstation will forward the approved messages and scripts to the DSR Community Management and Senior Services workstations. These

- workstations will forward the hotline messages to the DHSS Central Registry Unit (Elderly Abuse/Neglect hotline) staff, who will be assisting with hotline calls and will be receiving calls from their clientele (elderly, disabled, providers, etc), and to the local public health agencies and STARRS, St. Louis.
- f. The hotline staff will follow the scripts provided, maintain registry of calls and refer questions to the Hotline PIO coordinator. Calls will be triaged and those inquiries that require specific medical or health-related answers will be forwarded to the DHSS nurse hotline staff.
- g. Capacity of DHSS hotline activation:  
Tier 1:
- 10-12 lines in ITSD training room, 920 Wildwood
  - 8 –10 lines DHSS Central Registry Unit (elderly abuse/neglect hotline)
  - If needed. 12 lines and staff with Family Care Safety Registry.
  - Additional DHSS staff will be assigned to answer the hotline calls, if needed.
- Tier 2:
- Nurse Hotline volunteers.
- h. A summary report of the hotline capacity and contact information for the metropolitan LPHAs is available from the DHSS Public Information Administrator.

### **13. Nurse Hotline**

- a. The Hotline Nurse Consultant is the point of contact and will lead the nurse hotline volunteer hotline staff. DHSS nurse volunteers will staff the nurse hotline and be responsible for answering medical specific questions related to the disaster.
- b. The nurse hotline team will be stationed in the CERT Conference Room, 912 Wildwood, or the Hawthorne Conference Room, 912 Wildwood.
- c. Nurse hotline logistics information is available in the DSR procedure manual, and includes information on their go-kit, call tracking, “O” drive, email account and DSR interaction.
- d. The Medical Consultant will work closely with the Nurse Consultant to develop key messages, scripts and provide an overview of situation.
- e. The CERT public information administrator will maintain the list of nurse volunteers, which is saved on CERT’s I drive; Public Information; Hotline-Emergency Phone Bank; Nurses Hotline folder. The DSR duty officer or DSR Operations will call in nurses when nurse hotline is activated.
- f. Nurses in the Jefferson City area will be asked to report in-person. As the emergency progresses, nurses in the outlying areas will be asked to participate and return calls from their homes/offices.

### **13. Radio Scripts**

- a. Templates of emergency radio scripts are provided in the DHSS Public Information appendices.
- b. News releases and the scripts will be sent to radio stations recommending that they broadcast the public service announcements.
- c. Pandemic flu 30- and 60-second PSAs are posted on web site at:  
<http://www.dhss.mo.gov/PandemicInfluenza/PandemicFluPSAs.pdf>

#### **14. Emergency Alert System (EAS)**

- a. SEMA has a system in place to broadcast messages through the Emergency Alert System (EAS). DHSS will work with Richard Stumpt, SEMA, Communications Section, 573-526-9201.

#### **15. Health Alerts**

- a. Health alert templates are saved in CERT's shared drive. Contact the DHSS Medical Consultant for needed updates.
- b. Distribution procedures for Health Alerts are included in the DSR duty officer procedure manual.

#### **16. Additional Key Messages/Templates**

Key messages are available electronically and in hard copies (in separate binder):  
See page 2 of this document for complete list of prepared key messages.

- Messages for the following categories are saved on "O" drive, DSR Public Info folder, EMERGENCY Public Information folder:
  - Biological
  - Chemical
  - Earthquake
  - Feeding sites and shelters
  - State and local sample key messages
  - Isolation/quarantine and shelter in place
  - Mental health
  - Natural disasters
  - Pandemic influenza
  - Radiological
  - Strategic National Stockpile (SNS)
  - Terrorist attack
  - Radio scripts
  - Fact sheets
  - Ready in 3 resources
- Pandemic Flu key messages have been developed by pandemic phase and available electronically or in Key Messages binder. In addition, an on-line communication forum will be updated, according to the current phase: <http://www.dhss.mo.gov/messages>. They include:
  - DHSS Pandemic Influenza key messages to 77 questions commonly asked by journalists during a crisis.
  - Pandemic Influenza News Release Templates for Phases 4, 5 and 6
  - Key message maps, U.S. Department of Health and Human Services
- Mental Health Key Messages were developed by the Missouri Department of Mental Health (DMH). Hard copy is available at DSR PI workstation, from DHSS Public Information Administrator or on DMH's web site at: <http://www.dmh.mo.gov/diroffice/disaster/disaster.htm>

## **17. Additional Resources**

### **Websites:**

- DHSS: <http://www.dhss.mo.gov/PandemicInfluenza>
- U.S. Department of Health and Human Services: <http://www.pandemicflu.gov>

### **CD:**

- Biological, Chemical, Radiological Terrorism and Influenza (Pandemic, Avian and Seasonal): Basic Information for Medical Professionals. The Medical Consultant in the DHSS Center routinely updates this CD for Emergency Response and Terrorism. Copies of the CD are available from the DHSS/CERT public information administrator and are included in each Public Information “go-kit.”

### **Preparing for Pandemic Flu: A Community Guide:**

- <http://www.dhss.mo.gov/PandemicInfluenza>

### **Emergency Response Public Information Toolkit for Local Public Health Agencies**

- Toolkit includes news release templates, fact sheets, and key messages.
- [http://www.dhss.mo.gov/LPHA\\_Toolkit/index.html](http://www.dhss.mo.gov/LPHA_Toolkit/index.html)
- A toolkit and updates are shared with each LPHA in Missouri

### **Message Development Worksheet**

- [http://www.dhss.mo.gov/LPHA\\_Toolkit/Chap2/2-06.doc](http://www.dhss.mo.gov/LPHA_Toolkit/Chap2/2-06.doc)

## **18. Use of 911 Call Centers (PSAPs)**

Missouri 911 call centers, also called Public Safety Answering Points (PSAPs), provide emergency response information and assistance to residents in 91 of the state's 114 counties, reaching nearly 98 percent of the population with 911 service. During a large-scale emergency affecting much or all of the state, such as an influenza pandemic, these 911 call centers could serve as valuable media for vital public information.

The State Office of Administration's (OA) Information Technology Services Division has a State 911 Coordinator that maintains communication channels with all of Missouri's 911 PSAPs (approximately 200). To provide current, accurate public health information to all 911 call centers, forward all public health-related messages to OA. They, in turn will forward the information to all 911 call centers to have ready to provide to callers as needed.

OA's Contacts: R.D. Porter, Director of Information Security, State 9-1-1 Coordinator, Office of Administration, Information Technology Services, 573-522-8561, [RD.Porter@oa.mo.gov](mailto:RD.Porter@oa.mo.gov) -or- Lori Kleckner, Security Coordinator, Office of Administration, Information Technology Services, 573-751-5149, [Lori.Kleckner@oa.mo.gov](mailto:Lori.Kleckner@oa.mo.gov).



### 13. Media Outreach Plan for Pandemic Influenza

*As of May 28, 2008*

Project / Activity	Timeframe
Regular Flu Season – DHSS will include a note to editors/reporters at the end of routine influenza news releases noting this is not pandemic and advertising link to DHSS pandemic influenza resources, including differences between pandemic and routine influenza.	Ongoing
Regular Flu Season Widespread – News Release from MHA or DHSS on hospital planning efforts for surge from pandemic.	As needed
Pandemic Flu Radio Public Service Announcements (PSAs): Seasonal vs. Pandemic Flu (30- and 60-second)	Completed, and as needed
DHSS will distribute news release announcing Ready in 3 booklet, "Preparing for Pandemic Flu: A Community Guide." Media kit will be sent out later that day with fact sheets and materials.	Completed
Draft Newsletter articles for: Rural Missourian, Missouri Conservationist, Seniors and Special Populations newsletters	Completed, and as needed
Missouri Press Association and Missouri Broadcasters Association Annual Conferences – Offer to present Pandemic Influenza educational session at annual meeting	Completed. MPA annual conference, Sept. 6-8, 2007, STL MBA annual conference, June 7-9, 2007, STL
DHSS / Department of Agriculture / Department of Conservation will coordinate and send out news release when the first high-pathogenic Avian influenza is detected in birds in U.S.	Trigger Point – The first high-pathogenic Avian influenza in birds in the U.S.
News Release from DHSS outlining Missouri's steps to prepare. Pandemic Flu Radio PSAs: Avian Flu and Preparing for Pandemic Flu	Trigger Point – Next Human case of Avian influenza that's getting media attention.
Regional Seminars for Reporters by DHSS/LPHA Experts – two (2)-hour sessions in St. Louis, Kansas City, Springfield and Jefferson City / Columbia. Radio PSAs for Pandemic Phases Four, Five and Six	Trigger Point – Human-to-Human transmission suspected or verified

## Attachment A

### DHSS and Stakeholders Spokespersons Listing for *Pandemic Influenza* Additional DHSS Spokesperson Available in Appendices.

Agency	Spokesperson / Backup	Title / Area of Expertise	Phone	Fax	Email
Dept. of Health and Senior Services	Nanci Gonder	Chief, Office of Public Information	573-751-6062	573-751-6041	<a href="mailto:nanci.gonder@dhss.mo.gov">nanci.gonder@dhss.mo.gov</a>
	Brian Quinn		573-751-6062		<a href="mailto:brian.quinn@dhss.mo.gov">brian.quinn@dhss.mo.gov</a>
Dept. of Health and Senior Services	Eddie Hedrick	Emerging Infections Coordinator	573-522-8596	573-526-0235	<a href="mailto:eddie.hedrick@dhss.mo.gov">eddie.hedrick@dhss.mo.gov</a>
	Aaron Winslow		573-751-6476		<a href="mailto:aaron.winslow@dhss.mo.gov">aaron.winslow@dhss.mo.gov</a>
State Emergency Management Agency	Susie Stonner	Public Information Officer	573-526-9136	573-634-7966	<a href="mailto:susie.stonner@sema.dps.mo.gov">susie.stonner@sema.dps.mo.gov</a>
Dept. of Agriculture	Misti Preston	Communications Director	573-751-3377		<a href="mailto:Misti.preston@mda.mo.gov">Misti.preston@mda.mo.gov</a>
Dept. of Conservation	Dave Graber	Avian Influenza Coordinator	573-882-9909 x 3243	573-751-2260	<a href="mailto:david.graber@mdc.mo.gov">david.graber@mdc.mo.gov</a>
	Mike Roell		573-882-9909 x 3262		
Missouri Hospital Association	Dave Dillon	Vice President of Media Relations	573-893-3700 x1311	573-896-2809	<a href="mailto:ddillon@mail.mhanet.com">ddillon@mail.mhanet.com</a>
	Mary Becker		573-893-3700 x1309		<a href="mailto:mbecker@mail.mhanet.com">mbecker@mail.mhanet.com</a>
American Red Cross	Melissa Friel	State Relations Representative	635-1132 573-690-7527	573-635-8621	<a href="mailto:mnfarc@redcross.capitalarea.org">mnfarc@redcross.capitalarea.org</a>
	Diana Rickard		635-1132		
Dept. of Elementary and Secondary Education	Jim Morris	Director of Public Information	573-751-3469	573-751-8613	<a href="mailto:jim.morris@dese.mo.gov">jim.morris@dese.mo.gov</a>
Missouri Chamber of Commerce	Karen Buschmann	VP of Communications	573-634-3511	573-634-8855	<a href="mailto:kbuschmann@mochamber.com">kbuschmann@mochamber.com</a>
	Dan Mehan		573-634-3511		<a href="mailto:dmehan@mochamber.com">dmehan@mochamber.com</a>
Local Public Health Agencies	Contact your Local Public Health Agency				

## **Attachment B – Message Development Worksheet for Emergency Communication**

**First, consider the following:**

Audience:	Purpose of Message:	Method of delivery:
<input type="checkbox"/> Relationship to event <input type="checkbox"/> Demographics (age, language, education, culture) <input type="checkbox"/> Level of outrage (based on risk principles)	<input type="checkbox"/> Give facts/update <input type="checkbox"/> Rally to action <input type="checkbox"/> Clarify event status <input type="checkbox"/> Address rumors <input type="checkbox"/> Satisfy media requests	<input type="checkbox"/> Print media release <input type="checkbox"/> Web release <input type="checkbox"/> Through spokesperson (TV or in-person appearance) <input type="checkbox"/> Radio <input type="checkbox"/> Other (e.g., recorded phone message)

### **Six Basic Emergency Message Components:**

1.Expression of empathy:

\_\_\_\_\_

2.Clarifying facts/Call for Action:

Who \_\_\_\_\_

What \_\_\_\_\_

Where \_\_\_\_\_

When \_\_\_\_\_

Why \_\_\_\_\_

How \_\_\_\_\_

Add information on what residents should do or not do at this time \_\_\_\_\_

\_\_\_\_\_

3.What we don't know: \_\_\_\_\_

4.Process to get answers: \_\_\_\_\_

5.Statement of commitment: \_\_\_\_\_

6.Referrals: \_\_\_\_\_

For more information \_\_\_\_\_

Next scheduled update \_\_\_\_\_

Finally, check your message for the following:

<ul style="list-style-type: none"> <li>• Positive action steps</li> <li>• Honest/open tone</li> <li>• Applied risk communication principles</li> <li>• Test for clarity</li> <li>• Use simple words, short sentences</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid jargon</li> <li>• Avoid judgmental phrases</li> <li>• Avoid humor</li> <li>• Avoid extreme speculation</li> </ul>
---	--

*Source: CDC–Crisis and Emergency Risk Communication, CDCynergy*

## Pandemic Influenza Plan - Special Health Care Needs

---

For more information, contact Gary Harbison at [Gary.Harbison@dhss.mo.gov](mailto:Gary.Harbison@dhss.mo.gov) or 573.751.6246.

### Background

The Special Health Care Needs Pandemic Flu Subcommittee was given the mission to ensure Missourians with special health care needs in the community are recognized and receive full and equitable access to care. The population focus of this subcommittee is individuals living in their place of residence who require medical support and intervention.

Numerous state emergency preparedness plans were reviewed and most were found to use the broad special needs definition.<sup>1</sup> Consensus was reached within the subcommittee that a focus on persons with special health care needs who receive care in their place of residence would allow a functional approach to the charge of the committee. For the purpose of clarity, the subcommittee developed unique definitions for ‘special health care needs’ and a ‘home’ (refer to the Definitions section).

In addition, the subcommittee has strategically considered a variety of functional approaches to planning and preparation. Because of the vulnerability of people with special health care needs and the nature of pandemic flu, the primary focus of this committee has been ensuring that individuals with special health care needs and their family members are as prepared as possible. Since the addressed individuals often receive services and supports in their place of residence, an emphasis has been placed on training those who provide these services and supports. As providers interact with people with special health care needs, discussion of preparation and planning for pandemic flu should become routine. Providers will help individuals and their family members think proactively through the various aspects of preparation to minimize risk during a pandemic. In addition, providers will have a better understanding of the challenges they, and the people with whom they work, will face during a pandemic and will prepare to fulfill their roles and responsibilities under such conditions to the greatest degree possible. Easy-to-use tools to support planning and preparation have been developed, including the Special Health Care Needs insert for the Preparing for Pandemic Flu: A Community Guide. These materials will assist persons with special health care needs living at home or the caregivers of persons with special health care needs and are available at [www.dhss.mo.gov/Ready\\_in\\_3/PandemicInfluenza.html](http://www.dhss.mo.gov/Ready_in_3/PandemicInfluenza.html).

### Definitions

**Special Health Care Needs:** Those who have acute or chronic physical, developmental, behavioral, or emotional conditions and who also require health and related services of a type or amount beyond that required by individuals generally. This definition includes the frail elderly.

---

<sup>1</sup> The special needs population includes individuals with physical, mental, sensory, cognitive, cultural, ethnic, socio-economic (including homeless), age, citizenship status, or any other circumstance creating barriers to understanding or the ability to act/react as requested of the general population during all phases of emergency management. *Annex X, Special Needs Task Force, Emergency Preparedness*

Home: An individual residence, facility, or premises occupied by individual(s) who need or are provided with up to 24-hour support/care to meet their needs. Twenty-four hour professional medical care is not provided. Examples of homes may include:

- Individual(s) home
- Independent living
- Assisted living
- Group homes
- Medical foster homes
- Therapeutic foster homes
- Treatment family homes
- Residential care facilities
- Hospice

### **Roles and Responsibilities**

The subcommittee members determined that a statewide educational effort should be made by case managers/service providers to convey a consistent approach for pandemic influenza preparedness. Educational materials will be provided to case managers/service providers to make training a part of their routine visits to ensure families are adequately educated and prepared. The objective is to make pandemic influenza preparedness a part of families' everyday lives and promote family accountability.

### **Agencies addressing special health care needs populations**

- Area Agencies on Aging
- Centers for Independent Living
- Department of Elementary and Secondary Education
- Department of Health and Senior Services
- Department of Mental Health
- Governor's Council on Disability
- Home Health Agencies
- Hospice
- Local County Health Departments
- Missouri Planning Council for Developmental Disabilities

## Resources for individuals with special health care needs

- *U.S. Department of Health and Human Services:* <http://www.pandemicflu.gov/>
- *The Centers for Disease Control and Prevention (CDC) hotline, 1-800-CDC-INFO (1-800-232-4636), is available in English and Spanish, 24 hours a day, 7 days a week. TTY: 1-888-232-6348*
- *World Health Organization (Influenza Pandemic Threat: Current Situation):* [http://www.who.int/csr/disease/avian\\_influenza/pandemic/en/index.html](http://www.who.int/csr/disease/avian_influenza/pandemic/en/index.html)
- *Missouri Department of Health and Senior Services Pandemic Influenza Website:* <http://www.dhss.mo.gov/PandemicInfluenza/>
- *American Red Cross:* [http://www.redcross.org/services/disaster/0,1082,0\\_603\\_00.html](http://www.redcross.org/services/disaster/0,1082,0_603_00.html)
- *Disaster Preparedness for People with Disabilities:* <http://www.redcross.org/services/disaster/beprepared/disability.pdf>
- *A Guide for Individuals and Families:* <http://www.pandemicflu.gov/plan/pdf/guide.pdf>
- *Checklist for Individuals and Families:* <http://www.pandemicflu.gov/plan/pdf/Individuals.pdf>
- *CDC Public Health Workbook to Define, Locate and Reach Special, Vulnerable, and At-Risk Populations in an Emergency (DRAFT):* [www.bt.cdc.gov/workbook](http://www.bt.cdc.gov/workbook)

# **Pandemic Influenza Plan – Surveillance, Investigation and Data/Information Sharing**

---

For more information, contact chair C. Jon Hinkle at [Cjon.Hinkle@dhss.mo.gov](mailto:Cjon.Hinkle@dhss.mo.gov) or 816.632.7276.

## **PLANNING ASSUMPTIONS**

- The World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) will coordinate surveillance at the international and national level.
- It is unlikely, but not impossible, that the first cases in the United States will arise in Missouri. While this will give us some time to institute enhanced surveillance, this “lead time” is apt to be quite short due to issues associated with the speed and frequency of transportation.
- Identification of the initial cases in Missouri will be highly important to guiding early containment and control responses.
- As the pandemic progresses in Missouri, disease surveillance systems may be overwhelmed.
- Illness, disruption and death will result in significant reductions in the personnel available to perform these tasks at the very time the workload is greatest.
- Disruption of normally available goods and services, such as public utilities, food and fuel may post significant barriers to information gathering, analysis and dissemination.
- Despite the potential barriers to the efficient operation of our surveillance systems, the information gathered by those systems will be of vital importance in making decisions regarding the Public Health reaction to the progress of the pandemic.
- As the pandemic progresses further in Missouri, surveillance activities should shift away from individual case identification and toward identifying areas of need. This will require a flexible system that can adapt to assess not only the occurrence of illness and death, but also the availability (or lack thereof) of items ranging from medical supplies, equipment and facilities to food, fuel and the necessities of life.

## **BACKGROUND**

### **WHO Pandemic Phases 1-3**

Surveillance for influenza will be part of both active and passive routine disease surveillance as described in Attachment A.

### **WHO Pandemic Phases 4-6**

(Influenza moves from rare human-to-human transmission (i.e., phase 3) to increased human-to-human transmission (i.e., phase 4) and beyond to efficient and sustained human to human transmission (i.e., phase 6)).

## LEVELS OF RESPONSE

### When pandemic influenza (PI) is identified in the World, but not yet in the United States:

- Using statewide and local Health Alert Networks (HAN) and the EMSsystem, mandated disease reporters (providers, laboratories and hospitals) will be notified of the current situation. They will be reminded of the necessity for rapid testing and the need for accurate and rapid case reporting. Novel strains of influenza with pandemic potential should be reported immediately as defined by the reportable disease rule. Disease reporters will also be reminded of the limitations of rapid testing and that positives should be confirmed by polymerase chain reaction (PCR) testing whenever possible, especially as early cases in their geographical area are identified.
  - The Laboratory Preparedness Annex contains specific information regarding the submission of laboratory specimens. Virus cultures should **not** be attempted from patients suspected of having pandemic influenza.
- Providers who are members of the sentinel surveillance system will be asked to submit specimens on any cases that are of epidemiological interest, defined as those persons who recently traveled to regions where the pandemic strain of influenza is circulating or those with unusual and/or severe symptoms.
- Supplementary sentinel sites will be identified and readied for use when/if the Pandemic reaches the Western Hemisphere.
- Guidelines for reporting detailed, supplementary information (above and beyond the information required by 19 CSR 20-20.020) will be distributed to all mandated disease reporters as part of the Health Alert.\* Copies of the reporting form<sup>§</sup> will be included in the Health Alert and downloadable copies will be posted on the Missouri Department of Health and Senior Services (DHSS) website.
  - Supplementary information will include all information normally required for other disease case reports.
    - "...a case report as required in section (6) of this rule shall include the patient's name, home address with zip code, date of birth, age, sex, race, home phone number, name of disease, condition or finding diagnosed or suspected, the date of onset of the illness, name and address of the treating facility (if any) and the attending physician, any appropriate laboratory results, name and address of the reporter, ... and the date of report...." [19 CSR 20-20.020 (7)]
  - Additional information about travel to or contact with people from areas where Pandemic Influenza is known to be occurring and,
  - Vaccination history.
  - Reporting requirements can be tailored to CDC requests for specific information and will be submitted daily via National Electronic Communications System for Surveillance (NETSS), or as otherwise requested by CDC.

\* This change in reporting requirements can be made by the Director of the Missouri Department of Health and Senior Services (DHSS) or their designee.

§ A copy of the Pandemic Influenza Case Report is included as Attachment B.



**When PI is identified in the United States (or anywhere in the Western Hemisphere):**

- Mandated disease reporters (providers, laboratories and hospitals) will be notified of the current situation. They will be advised of the change in the reporting status for all types of influenza from weekly, aggregate reporting to immediate, detailed reporting of all diagnosed or suspected cases. They will be reminded of the necessity for rapid testing, and for the need for accurate and rapid case reporting of this immediately reportable condition. They will also be reminded of the limitations of rapid testing and that positives should be confirmed by PCR, especially as early cases in their geographical area are identified.
  - The Laboratory Preparedness Annex contains specific information regarding the submission of laboratory specimens. Virus cultures should **not** be attempted from patients suspected of having pandemic influenza.
- Providers who are members of the sentinel surveillance system will be asked to submit specimens on any cases that are of epidemiological interest, defined as those persons who recently traveled to regions where the pandemic strain of influenza is known to be circulating or those with unusual and/or severe symptoms.
- Supplementary sentinel sites will be activated.
- Existing surveillance systems will be analyzed at increased frequency.
- Active systems will be supplemented by adding additional sites. Local Active Surveillance System (LASS) information will be consolidated by Regional epidemiologists and forwarded to DHSS Senior Epidemiology specialists, or their designees. That data will be consolidated and forwarded to the Field Investigations/Surveillance lead in the Department Situation Room (DSR) and the Chief, Bureau of Communicable Disease Control and Prevention.
  - Local public health agencies (LPHAs) and their active surveillance sites will be reminded of the surveillance definition for influenza like illness (ILI). For the purposes of enhanced surveillance for influenza infections in humans: ILI is defined as documented fever >100.4°F (38.0°C) AND cough, sore throat, or shortness of breath.
  - LASS information will also be expanded to include numbers of persons hospitalized with ILI or PI, the number of hospitals with ILI/PI patients, the number of those isolated or quarantined, and the number of deaths associated with ILI/PI
    - A statewide electronic death reporting system is currently in the beginning stages of development. Currently, all LPHAs are the vital records registrars for their jurisdictions, and as such, receive notifications of deaths that occur within their jurisdiction.
  - LPHAs will be provided with a standardized active surveillance spreadsheet upon which to aggregate their data for submission. This will facilitate aggregation of the data on a Regional and Statewide basis.
- As described under Department of Health and Senior Service Responsibilities, Pandemic Alert Period: Phase 5, the DSR will be activated. The DSR Field Surveillance Officer will serve as the Surveillance Coordinator. In an Incident Center System (ICS) Branch structure, the existing disease control staff in each of five Regional offices will serve as Branch Epidemiology/Surveillance Supervisors. They will be the contact point for a team of no more than seven contract epidemiology specialists, currently in place in the LPHAs and under contract with DHSS (ICS Regional Epi Groups). Those Regional Epi

Groups will function as the liaison with the normal disease control staff in the LPHAs. Each member of the group will have responsibility for primary communication and data sharing with four to seven LPHAs. Using existing personnel, supplemented with some personnel from other regions of the state, it will be possible to staff the DSR, the Regional Branch Supervisors and the Regional Epi Groups on a 24/7 basis for an extended period. Attachment C illustrates the ICS structure for the Northwestern Region, one of five regions in the state.

**When PI is identified in Missouri:**

- The first reported case(s) will be investigated immediately by LPHA disease investigation staff to learn the details and extent of the case(s). DHSS disease control staff will be available to support LPHA disease investigation staff on a real-time basis during those first investigations. Information from the investigation(s) will be immediately relayed to the Surveillance Coordinator, following the ICS structure described in Attachment C. In the unlikely event that the first case of PI in the United States arises in Missouri, that information will go directly to the DSR and cause activation of the Regional Branch Surveillance Structure. Control and containment decisions will be made in consultation with CDC, and will be based on the information gained during those investigations(s).
- Continue case-specific (passive) and active surveillance as above until the occurrence of pandemic influenza is quantified as Regional, based on the adaptation of the CDC guidelines:
  - No Activity: No laboratory-confirmed cases of influenza and no reported increase in the number of cases of ILI.
  - Sporadic: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.
  - Local: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.
  - Regional: Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state.
  - Widespread: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state.
- The Bureau of Communicable Disease Control and Prevention and the Section of Epidemiology for Public Health Practice will use collected data to make an estimate of the progress of the disease, and make recommendations based on that information. Those activities may include, but are not be limited to:
  - Identifying areas of increasing or decreasing incidence to make recommendations regarding local isolation, quarantine or other prevention/intervention activities.
  - Monitoring for antiviral resistance.
  - Monitoring for adverse vaccine reactions.
  - Analyzing case fatality rates, age groups affected and novel means of transmission.
  - Monitoring and instituting recommendations from CDC for any additional surveillance activities that should be undertaken given the specific circumstances.
  - Preparing reports for the Incident Commander as needed.

As the extent of PI increases from Local to Regional, surveillance activities should revert to pre-pandemic (i.e., phases 1-3) modes and surveillance activities should shift to monitoring the ability of the private medical care system to cope with increased patient loads.

- Monitor the EMS system for indications of shortages and diversions in particular facilities or regions.
- Work with Missouri Hospital Association and other entities to identify and quantify local or regional shortages.
- Use the collected information to recommend redeployment of available resources to areas of greatest need.

## *Attachment A*

### *Background: Existing Surveillance Systems and Reporting Rules*

The following outline describes the various surveillance systems currently in place in Missouri. These are the systems that are charged with detecting a case of pandemic influenza under the current circumstances.

#### I. Background: World Health Organization (WHO) Pandemic Phases

##### *A. Interpandemic period*

Phase 1: No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.

Phase 2: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

##### *B. Pandemic alert period*

Phase 3: Human infection(s) with a new subtype but no human-to-human spread, or at most rare instances of spread to a close contact.

Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

Phase 5: Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

##### *C. Pandemic period*

Phase 6: Pandemic: increased and sustained transmission in general population.

#### II. Two general types of surveillance, Passive and Active, plus Cooperative Zoonotic Surveillance

##### *A. Passive: Surveillance sites submit data without prompting*

###### 1. As required by [19 CSR 20-20.020](#)

([www.sos.mo.gov/adrules/csr/current/19csr/19c20-20.pdf](http://www.sos.mo.gov/adrules/csr/current/19csr/19c20-20.pdf))

###### a) Reportable Disease List

###### *(1) The diseases within the immediately reportable disease category...*

- (a) Selected high priority diseases, findings or agents that occur naturally, from accidental exposure, or as the result of a bioterrorism event: (10 diseases or conditions).
- (b) Instances, clusters, or outbreaks of unusual diseases or manifestations of illness.
- (c) Instances, clusters, or outbreaks of unusual, novel, and/or emerging diseases or findings not otherwise named in this rule.

## Attachment A

- (2) *Reportable within one (1) day: diseases or findings shall be reported to the local health authority or to the Department of Health and Senior Services within one (1) calendar day of first knowledge or suspicion...*
    - (a) Diseases, findings or agents that occur naturally: (35 diseases or conditions)
    - (b) Diseases, findings or adverse reactions that occur as a result of inoculation to prevent smallpox: (13 diseases or conditions)
  - (3) *Reportable within three (3) days: diseases or findings shall be reported to the local health authority or the Department of Health and Senior Services within three (3) calendar days of first knowledge or suspicion. (67 diseases or conditions)*
  - (4) *Reportable weekly: diseases or findings shall be reported directly to the Department of Health and Senior Services weekly. These diseases or findings are: Influenza, laboratory-confirmed*
  - (5) *Reportable quarterly: diseases or findings shall be reported directly to the Department of Health and Senior Services quarterly. (2 conditions)*
- b) Required Disease Reporters, Information and Timeframes (quoted from 19 CSR 20-20.020) ([www.sos.mo.gov/adrules/csr/current/19csr/19c20-20.pdf](http://www.sos.mo.gov/adrules/csr/current/19csr/19c20-20.pdf))
- (1) *Required Reporters:*
    - (a) A physician, physician's assistant, nurse, hospital, clinic, or other private or public institution providing diagnostic testing, screening or care to any person with any disease, condition or finding listed in sections (1)–(3) of this rule.
    - (b) Any person in charge of a public or private school, summer camp or child or adult care facility shall report to the local health authority or the Department of Health and Senior Services the presence or suspected presence of any diseases or findings listed in sections (1)–(4) of this rule according to the specified time frames.
  - (2) *Information to be reported:*
    - (a) Except for influenza, laboratory-confirmed and Varicella (Chickenpox); a case report as required in section (6) of this rule shall include the patient's name, home address with zip code, date of birth, age, sex, race, home phone number, name of disease, condition or finding diagnosed or suspected, the date of onset of the illness, name and address of the treating facility (if any) and the attending physician, any appropriate laboratory results, name and address of the reporter, treatment information for sexually transmitted diseases, and the date of report.
  - (3) *Special cases:*
    - (a) Influenza, laboratory-confirmed reporting as required in section (4) of this rule shall include the patient's age group (i.e., 0–4, 5–24, 25–64, and 65+ years) and serology/serotype (i.e., A, B, and unknown), the local health authority jurisdiction within which the cases occurred, and the date of report. Aggregate patient data shall be reported weekly.
    - (b) (Nosocomial MRSA & VRE as in section (5)). Each hospital and ambulatory surgical center shall report on a quarterly basis antibiogram data for infection, not colonization, from all body sites monitored by that health care facility. Antibiogram data to be reported

## Attachment A

shall include nosocomial methicillin sensitive *Staphylococcus aureus* (*S. aureus*), nosocomial *S. aureus*, nosocomial vancomycin sensitive enterococci, and nosocomial enterococci isolates.... Reporting shall include only a patient's first diagnostic nosocomial isolate per admission of *Staphylococcus aureus* (*S. aureus*) and enterococci and the isolates corresponding methicillin or vancomycin sensitivity... Aggregate data shall be reported for the quarters January–March, April–June, July–September, and October–December within ten (10) days of the end of the quarter.

(4) *Local Public Health Agency (LPHA) Duties:*

- (a) All local health authorities shall forward to the Department of Health and Senior Services reports of all diseases or findings listed in sections (1)–(3) of this rule. All reports shall be forwarded within twenty-four (24) hours after being received...

2. Disease-specific:

a) Influenza

(1) *Sentinel Influenza Provider System (Seasonal ILI)*

- (a) Approximately 35 private providers are recruited to tally the number of influenza like illness seen in their practice each week and submit those numbers via the web. Additionally, they are asked to collect a limited number of specimens throughout the season (i.e. two (2) – three (3) early, two (2) in the middle and two (2) late) for culturing at the State Public Health Laboratory.

b) West Nile (and other Arboviruses)

(1) *“Mosquito Pools”*

- (a) Mosquitoes, trapped by LPHA staff are submitted to Southeast MO State University for testing.

*B. Active: LPHA contacts surveillance site to elicit data.*

1. Local Active Surveillance System (LASS)

- a) LPHAs recruit a number of surveillance sites within their jurisdiction and then contact them each week to receive surveillance information.

- (1) Number and type of sites is chosen by the LPHA to reflect the general population of their jurisdiction.
- (2) Data is kept at the local level and analysis is done there. It is not routinely shared across jurisdictions, except in instances where regional (contract) Epidemiologists collect it from all of the LPHAs in their area.
- (3) The format and type of data collected is determined by each individual LPHA, except where standardized by a regional (contract) Epidemiologist.

## Attachment A

### 2. DHSS-monitored Surveillance Systems:

a) Hospital Electronic Syndromic Surveillance (HESS) Reporting Rule (19 CSR 10-33.040) requires that 85 out of 123 hospitals with emergency departments (ED) report electronic data to DHSS specifically for syndromic surveillance. HESS is an automated system that captures about 90% of all ED visits in Missouri. These data are analyzed using Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) and BioSense software, which are designed to identify geographic and temporal clusters. ESSENCE will be upgraded to real time by June 2009; BioSense already possesses some real-time capabilities.

(1) Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE - [www.dhss.mo.gov/ESSENCE](http://www.dhss.mo.gov/ESSENCE))

(a) Software maintained by Johns Hopkins University designed to analyze electronically submitted emergency department data for significant changes in the number of individuals presenting in identified syndrome groups (ICD 9 codes). These aberrations are identified as “alerts” and are investigated as needed by state and local staff.

(b) To date, Public Health Event Detection and Assessment (PHEDA) staff, state epidemiologists and LPHA epidemiologists have been given access to the system, as well as representatives from submitting hospitals.

(c) ESSENCE is maintained and monitored daily by DHSS (PHEDA staff). Data is available for analysis the next day.

(d) Currently, the majority of hospitals from around the state are submitting emergency department data to DHSS. See map at [www.dhss.mo.gov/ESSENCE/Missouri ESSENCE Map.pdf](http://www.dhss.mo.gov/ESSENCE/Missouri_ESSENCE_Map.pdf).

b) Bioterrorism Surveillance System (BTSurv):

(1) System designed by DHSS to analyze data voluntarily submitted by hospitals and schools for changes in eight (8) syndromic categories.

(2) BTSurv is maintained by PHEDA and currently consists of 40 data submitters.

(3) Plans are to use the BTSurv system in the future as a means to include nursing homes and to increase the number of schools enrolled in syndromic surveillance. BTSurv can avoid some of the technological limitations the electronic submissions required by ESSNCE can cause.

c) Missouri Ambulance Reporting System:

The Missouri Ambulance Reporting System (MARS) allows 236 emergency medical services (EMS) to enter ambulance run data. MARS captures 81.4% of all services in Missouri. EMS staff enter data manually via the MARS web application, therefore MARS is not an automated real time system. But they do provide temporal, geographic, and symptom information. This system is administered by the Emergency Medical Services unit of the Bureau of Health Services Regulation and the data is available to the PHEDA staff for analysis.

## Attachment A

### d) BioSense

- (1) System maintained by CDC that analyzes data submitted electronically to DHSS (see ESSENCE for reporting rules) using similar, yet unique, statistical means to that of ESSENCE.
- (2) PHEDA is responsible for day to day monitoring of the BioSense system. Data contributors and state and local monitors can be granted access should they wish with approval from DHSS.
- (3) Data examined is filtered and disseminated to CDC by DHSS and, therefore, is the exact same data as that monitored by ESSENCE. The exception to this is that of a direct feed system from some St. Louis hospitals (Barnes Jewish system) that allows for real-time data availability rather than the one (1) day lag observed with most BioSense/ESSENCE hospitals. Additionally, some hospitals in the St. Louis and Kansas City areas submit laboratory and x-ray results not available in ESSENCE.
- (4) BioSense includes data from Veterans Hospitals unlike ESSENCE.
- (5) Over the counter drug sales and LabCorp testing results are available or will be in the near future with the BioSense system.

### C. *Cooperative Zoonotic Surveillance Systems:*

A zoonotic influenza subcommittee was established to ensure coordination among the Missouri Departments of Agriculture; Health and Senior Services; Conservation; and Natural Resources; as well as other state partners, federal animal health agencies (United States Departments of Agriculture [USDA] and Interior [ISDI]), and associated industries. This subcommittee will provide an integrated response to cases or outbreaks of high pathogenicity avian influenza (or low pathogenicity avian influenza of zoonotic concern) in poultry, waterfowl, swine or other animals, thereby protecting human life and reducing the social, economic, and mental health impacts on Missouri's citizens and communities.

1. Wild Bird Surveillance: Under a cooperative agreement with the Missouri Conservation Department, wild birds a wild bird surveillance plan was developed following the guidance contained in An Early Detection System for Highly Pathogenic H5N1 Avian Influenza in Wild Migratory Birds, published by Wild Bird High Pathogenicity Avian Influenza Interagency Working Group, composed of agencies such as the USDA, USDI, state of Alaska, and the National Association of Public Health Veterinarians. A copy of the entire plan is available on the web at: [http://www.doi.gov/issues/birdflu\\_strategicplan.pdf](http://www.doi.gov/issues/birdflu_strategicplan.pdf) (Note: see page 88 of PDF)
2. Domestic Bird Surveillance: The Missouri Department of Agriculture, and USDA/Animal and Plant Health Inspection Service/Veterinary Services collaborate with the Missouri poultry industry to routinely test domestic (farm) birds and to increase surveillance/testing during crises. Information pertaining to these programs is included in the: Missouri Poultry Improvement Plan: <http://www.mda.mo.gov/Animals/poultry.htm#poultry.htm>. Agreements are in place to share detections produced by this surveillance with the Missouri Department of Health and Senior Services, through the State Public Health Veterinarian's office.
3. The entire Zoonotic Influenza Subcommittee Surveillance, Prevention, and Response Plan can be viewed on the web at: <http://www.dhss.mo.gov/PandemicInfluenza/subcommittees/zoonotic/>



## Attachment B

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES PANDEMIC INFLUENZA CASE REPORT										FOR PUBLIC HEALTH USE ONLY				
PANDEMIC INFLUENZA IS IMMEDIATELY REPORTABLE. CALL THE MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES 24 HOURS A DAY, 7 DAYS A WEEK AT (800) 362-2422 OR FAX (573) 526-2939 OR CONTACT YOUR LOCAL HEALTH DEPARTMENT										CONDITION ID.	PARTY ID.			
										OUTBREAK ID.	DATE RECEIVED BY LHP			
Patient Information	NAME (LAST, FIRST, MI)			DATE OF REPORT		MEDICAL RECORD, NATE, CHART NUMBER, DCN OR OTHER IDENTIFIER			GENDER <input type="checkbox"/> Male <input type="checkbox"/> Female					
	DATE OF BIRTH		AGE	MARITAL STATUS		PREGNANT <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK		RACE (CHECK ALL THAT APPLY) <input type="checkbox"/> ASIAN <input type="checkbox"/> WHITE <input type="checkbox"/> PACIFIC ISLANDER <input type="checkbox"/> BLACK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> AMERICAN INDIAN <input type="checkbox"/> OTHER RACE - Specify:						
	PATIENT'S COUNTRY OF ORIGIN			DATE ARRIVED IN US										
	ADDRESS			CITY, STATE, ZIP CODE		COUNTY OF RESIDENCE			PRIMARY (HOME) TELEPHONE					
	PATIENT'S E-MAIL ADDRESS			ALTERNATE CONTACT NAME		ALTERNATE CONTACT TELEPHONE		ALTERNATE CONTACT RELATIONSHIP		ALTERNATE CONTACT E-MAIL				
	TRAVEL MORE THAN 25 MILES FROM HOME WITHIN 7 DAYS OF ONSET OF SYMPTOMS <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK										DEPARTURE DATE		RETURN DATE	
	TRAVEL LOCATION (ATTACH ITINERARY IF POSSIBLE)										PREGNANT <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK		PERMIT OR QUARANTINE DUE DATE:	
	WAS PATIENT HOSPITALIZED? <input type="checkbox"/> YES <input type="checkbox"/> NO		NAME OF HOSPITAL			HOSPITAL ADDRESS			HOSPITAL CITY, STATE, ZIP CODE		HOSPITAL TELEPHONE			
	OCCUPATION			WORK TELEPHONE		OTHER ASSOCIATED CASES? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK		PATIENT DIED OF THIS ILLNESS <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK		DATE OF DEATH				
	Reporter	REPORTER NAME			REPORTER ADDRESS			CITY, STATE, ZIP CODE			REPORTER TELEPHONE			
TYPE OF REPORTING AGENCY <input type="checkbox"/> PHYSICIAN <input type="checkbox"/> OUTPATIENT CLINIC <input type="checkbox"/> HOSPITAL <input type="checkbox"/> LABORATORY <input type="checkbox"/> SCHOOL <input type="checkbox"/> OTHER:			ATTENDING PHYSICIAN'S NAME			PHYSICIAN TELEPHONE			WAS PATIENT NOTIFIED OF DIAGNOSIS OR RESULTS? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK					
			PHYSICIAN ADDRESS			CITY, STATE, ZIP CODE			PHYSICIAN E-MAIL					
Risk Information	CHECK BELOW IF PATIENT OR MEMBER OF PATIENT'S HOUSEHOLD (H-H-L-D):			PATIENT		HOUSEHOLD		IF YES, PROVIDE BUSINESS NAME, ADDRESS AND TELEPHONE NUMBER						
	IS 64+ BIRTH CARE WORKER?			YES	NO	UNK	YES	NO	UNK					
	IS 6 STUDENT OR FACULTY OF 6 SCHOOL?			YES	NO	UNK	YES	NO	UNK					
	ASSOCIATED WITH OR ATTENDING CHILD ADULT CARE CENTER?			YES	NO	UNK	YES	NO	UNK					
	ASSOCIATED WITH OR RESIDENT OF NURSING HOME?			YES	NO	UNK	YES	NO	UNK					
	ASSOCIATED WITH HOMELESS SHELTER OR CORRECTIONAL FACILITY?			YES	NO	UNK	YES	NO	UNK					
	CONTACT WITH PERSON(S) WITH SIMILAR ILLNESS?			YES	NO	UNK	YES	NO	UNK	IF YES, PROVIDE NAME, ADDRESS, TELEPHONE NUMBER AND DATE OF CONTACT BELOW:				
	CONTACT:													
	CONTACTS: (ATTACH ADDITIONAL SHEET IF NECESSARY)													
Disease	DISEASE NAME(S)			ONSET DATE(S)		DIAGNOSIS DATE(S)		SEVERITY OF ILLNESS <input type="checkbox"/> MILD <input type="checkbox"/> MODERATE <input type="checkbox"/> SEVERE		VACCINATION HISTORY DATES Seasonal Influenza Vaccine: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK DATE: Pneumococcal Vaccine: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK DATE:				
Symptoms	DATE OF ONSET OF FIRST SYMPTOM (H-H-DD/YY/YY)			<input type="checkbox"/> FEVER > 38 C		<input type="checkbox"/> RHINORRHEA		<input type="checkbox"/> ABDOMINAL PAIN		OTHER PERTINENT INFORMATION				
				<input type="checkbox"/> COUGH		<input type="checkbox"/> CONJUNCTIVITIS		<input type="checkbox"/> NAUSEA						
SIGNS AND SYMPTOMS CHECK ALL THAT APPLY			<input type="checkbox"/> DYSPNOEA		<input type="checkbox"/> MYALGIAS		<input type="checkbox"/> VOMITING							
			<input type="checkbox"/> SORE THROAT		<input type="checkbox"/> FATIGUE		<input type="checkbox"/> DIARRHEA							
			<input type="checkbox"/> HEADACHE		OTHER:									
Diagnostics	DO NOT COMPLETE IF LAB SLIP IS ATTACHED													
	RESULT DATE (H-H-DD/YY/YY)	TYPE OF TEST	SPECIMEN TYPE/SOURCE	SPECIMEN DATE (H-H-DD/YY/YY)	QUALITATIVE/QUANTITATIVE RESULTS	LABORATORY NAME/ADDRESS (STREET, CITY, STATE, ZIP CODE) OR BRAND OF RAPID TEST								
Treatment	TYPE OF TREATMENT (H-H-DD/YY/YY) IF NOT TREATED, LIST REASON			DOSE/AGE	TREATMENT DATE (H-H-DD/YY/YY)	TREATMENT DURATION (in days)	PREVIOUS MEDICATIONS USED FOR TREATMENT		PREVIOUS TREATMENT FACILITY	TELEPHONE NUMBER				

H0546-6779 (F161-64)

CD-1-P1

## Attachment C

### Incident Command System (ICS) Regional Branch Surveillance Structure

DSR	Branch Level	Group Level				LPHA
Surveillance Coordinator: DSR_Field_Surveillance_Officer	Branch Epidemiology Supervisor: Regional Sr Epi Specialist Regional CD Coordinator (ES) Regional Epi Specialist*	Regional Surveillance Group 1				
		LPHA Contract Epi 1*	LPHA Contract Epi 2	LPHA Contract Epi 3	LPHA Contract Epi 4	LPHA 1
						LPHA 2
						LPHA 3
						LPHA 4
						LPHA 5
		Regional Surveillance Group 2				
		LPHA Contract Epi 5	LPHA Contract Epi 6	LPHA Contract Epi 7	LPHA Contract Epi 8	LPHA 6
						LPHA 7
						LPHA 8
						LPHA 9
						LPHA 10
						LPHA 11
		Regional Surveillance Group 3				
		LPHA contract epi 9	LPHA contract Epi 10	LPHA contract epi 11	LPHA contract epi 12	LPHA 12
						LPHA 13
						LPHA 14
						LPHA 15
						LPHA 16
		Regional Surveillance Group 4				
		LPHA Contract Epi 13	LPHA Contract Epi 14	LPHA Contract Epi 15	LPHA Contract Epi 16	LPHA 17
						LPHA 18
						LPHA 19
						LPHA 20
						LPHA 21
LPHA 22						
Regional Surveillance Group 5						
LPHA Contract Epi 17	LPHA Contract Epi 18	LPHA Contract Epi 19	LPHA Contract Epi 20	LPHA 23		
				LPHA 24		
				LPHA 25		
				LPHA 26		
				LPHA 27		
				LPHA 28		

\*Note: Other Epi Specialists may be assigned as needed to fill open slots.

## Pandemic Influenza Plan – Vaccine Storage and Distribution

---

For more information, contact chair Jeannie Ruth at [Jeannie.Ruth@dhss.mo.gov](mailto:Jeannie.Ruth@dhss.mo.gov) or 573.751.6124.

### Introduction

The annual distribution and administration of vaccine for each winter's predicted strain of influenza is an "institutionalized" process involving both the public and private sectors. For this annual vaccination effort, the vaccine type is predicted by the Centers for Disease Control and Prevention (CDC) approximately 18 months before the anticipated influenza season. In recent years, manufacturers have predicted that 90-110 million doses would be available over a x to eight month period.

Except for some children eight (8) years of age and younger, effective immunization is generally achieved with a single dose of vaccine. Approximately 90% of the vaccine is directed toward high-risk individuals as defined by the Advisory Committee on Immunization Practices (ACIP). The next pandemic will pose a number of threats to this existing vaccine delivery and immunization process. Critical factors that will affect the current system of vaccine distribution include the following:

- The time period for the identification, production, and distribution of vaccine to prevent influenza will be greatly shortened, placing considerable burdens on all existing processes and procedures.
- Because time frames for planned production, distribution, and administration are shorter, significant shortages and delays in vaccine availability will likely arise.
- Limited allotments of vaccine will be shipped to states, probably on a weekly basis.
- In all likelihood, the target population for vaccination coverage will be extended well beyond the typical high-risk populations, with a potential goal of vaccinating the entire population.
- The influenza virus encountered during a pandemic will represent a new strain, expressing novel hemagglutinin (HA) and/or neuraminidase (NA) antigens. Thus, to maximize vaccine efficacy, it may be necessary to give a second dose of vaccine approximately 30 days after the initial administration.
- It is expected that the pandemic will be underway in the state, perhaps for a number of months, before adequate amounts of vaccine are made available. As such, the management and distribution of the vaccine may be complicated by staff and resource shortages, infrastructure disruptions, and under heightened scrutiny from elected officials, the media, and the general public.

As a result of these concerns and considerations, state and local public health providers must develop a strategic plan for the management of vaccine delivery and administration during a pandemic. That plan must ensure that the distribution and allocation of available vaccine is organized and coordinated so as to maximize the public's health and safety.

### Assumptions

When considering the challenges that must be addressed to ensure a smooth and efficient distribution of available vaccine, the Missouri Department of Health and Senior Services

(DHSS) has accepted CDC guidance and has based its plan for providing vaccine on the following assumptions:

- **Supply**

Based on guidelines issued by the CDC, it is understood that in the event of a pandemic, the total vaccine supply will initially be under the control of the federal government. This suggests that Missouri will be assigned an “allotment” of vaccine and that all distribution efforts will be based on that allocation.

- **Distribution Activity**

Actual distribution activities cannot begin until the CDC, in cooperation with manufacturers, can offer an expected date for delivery of vaccine.

- **Shortages**

The vaccine allotment may not be adequate to meet the state’s entire need for vaccine. Therefore, vaccine shortages are expected and may be so extensive that the supply will not be adequate to protect all individuals who have a critical role in managing the crisis.

- **Costs**

The state of Missouri and local communities will need to absorb the “up-front” costs associated with the purchase, delivery, and administration of vaccine. The CDC anticipates that national resources may be able to offset costs, although the exact level and nature of such resources is not yet clear. Federal resource assistance may include federal contracts for the purchase of vaccine, grants, or reimbursement activities to subsidize the costs associated with vaccine distribution. However, at a minimum, the state and its local public health communities should expect to absorb the costs associated with the redirection of personnel and should expect to use other financial resources to meet immunization objectives.

- **Liability**

Any activity related to liability issues and concerns that may be associated with instances of adverse reactions to vaccine administration will be the responsibility of the federal government. For inclusion in this federal liability coverage, the medical provider must ensure there is adequate and accurate documentation regarding the vaccine administration process and be able to identify vaccine recipients. This information must be entered into the state’s electronic immunization registry.

- **Centralized Control**

Appropriate management of the distribution and allocation of available vaccine will be under the oversight of DHSS. DHSS, in collaboration with partnered agencies, will assure appropriate security and safety of the vaccine in delivery, transport, and storage. DHSS will determine that local plans are in place for allocations and priority groups in accordance with federal guidance and establish ordering mechanisms and processes. An incident command system will be employed within the framework of the State Emergency Operations Plan and additional resource requests for supplies (including vaccine),

equipment, or personnel must be routed through the local emergency operations center to the state emergency operations center.

### **Interpandemic Infrastructure**

Missouri will base its emergency vaccine delivery, in large part, upon its current distribution system. This system is based in the Department of Health and Senior Services' (DHSS) Bureau of Immunization Assessment and Assurance (BIAA) and the contract vaccine distributor.

The current infrastructure is used to efficiently distribute childhood vaccine. In 2006, more than 100,000 doses of childhood vaccine were distributed by the DHSS's Vaccines for Children Program. This distribution program incorporates systems, policies, and procedures that can be adapted to assist the state in its pandemic vaccine distribution goals and objectives. Specifically, the current distribution system includes:

- A contract vaccine distributor for management of a state distribution system.
- Adequate coolers and supplemental power sources for proper storage of vaccine according to manufacturers' recommendations.
- Adequate supplies for repackaging vaccine as necessary.
- Established protocols and lines of communication.
- An existing communications infrastructure, which includes phone and fax accessibility for the community.
- An existing computer system for tracking inventory receipt and shipping.
- Trained professional and support staff capable of preparing shipments for up to 35 different sites per day. These shipments average 6,000 doses a day and ship three days a week.
- Experience with providing rapid, accurate service with the ability to complete and ship orders within two to three days of receipt.

### **Pandemic Vaccine Supply and Distribution**

- **Supply Needs versus Allocation**

Missouri had approximately 5.8 million residents in the year 2005. Faced with a novel influenza virus, estimates suggest that Missouri could need over 11 million doses of vaccine to fully immunize its population. However, due to anticipated shortages and delays in acquiring vaccine, the actual distribution will, in all likelihood, be substantially less than the amount needed for full population immunization.

- **Ordering and Distribution**

DHSS expects that the need will exceed vaccine availability, and as such Missouri will submit its order to the CDC for the maximum allocation of vaccine. The CDC will have the responsibility for ensuring that the manufacturer ships the vaccine to Missouri's contract vaccine distributor. If the manufacturers and the CDC allow multiple shipping sites, local public health agencies or previously identified community partners in selected large counties will be targeted for direct shipment. In order for facilities to be considered for direct receipt of vaccine, the following conditions must be met:

- The Local Public Health Agency (LPHA) must have adequate storage capacity to safely accept direct shipments.

- The epidemiology of the disease suggests that faster access to vaccine is needed in that community.
- The LPHA has developed a clear community-based plan to ensure vaccine will be quickly and properly redistributed throughout the county.

Supplies of vaccine would be shipped to a contract vaccine distributor. The Bureau of Immunization Assessment and Assurance (BIAA) will base its emergency vaccine delivery, in large part, upon its current distribution system. The BIAA will order vaccine for each vaccination site from the contract distributor. Vaccine will be shipped from CDC or manufacturer to the contract vaccine distributor who will be responsible to provide appropriate 24/7 security and will store vaccine and medications according to manufacturers' recommendations. A calibrated thermometer will be read and recorded twice daily by personnel experienced in vaccine preservation. The contract distributor will provide appropriate shipping materials and will ship vaccine directly to clinic sites, as ordered by BIAA. The contract distributor will maintain, on a real-time basis, the database inventory of each dose of vaccine that is transferred to each of the LPHAs designated to conduct the vaccination clinics. Temporary relocation of some existing inventory would be considered if capacity storage greater than one million doses were needed. Current activities are underway to identify the state's partners, such as local hospitals, that could assist with these short-term emergency storage needs. The BIAA and the contract vaccine distributor staff will focus on redistributing the flu vaccine as quickly as possible to local communities.

### **Local Public Health Agency Activity**

For the majority of Missouri's local health authorities (city and county), the local vaccine storage site will be based at the LPHA. These facilities have the experience and resources to store and to secure vaccine properly as well as to track its receipt and redistribution. As a local storage site, each LPHA will be responsible for developing a local plan that conforms to the priorities set forth below. Specifically, local public health agencies will be required to:

- Educate the local community in advance of a pandemic.
- Current activities are underway at DHHS to determine information regarding size of the vials, storage, and handling requirements. Once available, they will be shared with LPHAs, who will then identify the maximum amount of vaccine that can be accepted under emergency conditions for short-term storage.
- Define procedures to assure the biological safety and physical security of the vaccine within the local public health agency.
- Identify the community partners who will work with the LPHA and DHSS to administer vaccine to targeted populations.
- Define procedures to document accurately the receipt and redistribution of vaccine. This documentation should, at a minimum, indicate the amount and date the vaccine is received, as well as the amount, date, and method of redistribution to the identified community partner. (Note: The BIAA is currently working with the SNS Program Manager and awaiting further guidance from the CDC to determine the most expeditious manner of vaccine distribution documentation.)
- Develop a system for notifying those partners with as much advance notice as possible. Notice will include timing for the local availability of vaccine for delivery or pick-up.

- Assure that the redistribution of vaccine will occur prior to receipt of the next capacity shipment so that no vaccine is lost because of inadequate storage. In some counties where large provider groups can accept direct shipment of large amounts of vaccine, additional local distribution sites may be added. These additional shipping sites should be identified and included in the LPHA's plan. Examples of sites that local communities should consider for direct shipment from the contract vaccine distributor include:
  - Hospitals and medical centers.
  - Tertiary care centers with extensive outreach clinics and services.
  - Large provider practices serving over 1,000 people per month.
  - Large residential facilities with over 500 beds serving elderly, disabled, or other dependent populations.

The contract vaccine distributor will continue shipments of vaccine to LPHA and other identified community sites as necessary to address community needs. Shipments may occur weekly or monthly depending on vaccine supply and usage. If LPHAs need additional staff to manage excessively large shipments or to continue vaccine management and shipping activity for extended hours or over nontraditional workdays, these requests need to be forwarded through the local emergency operations center to the state emergency operations center.. When developing a redistribution plan, LPHAs should consider the following provider groups as potential partners for vaccine redistribution and administration:

- Federally funded health care centers and clinics.
- Private medical providers, coordinated through the local medical society.
- Urgent care centers, walk-in clinics, or managed care organizations.
- Hospitals with outpatient services and clinics.
- Hospital emergency facilities.
- Nursing homes and assisted living facilities.
- Paramedics and emergency management personnel.
- School health clinics, including colleges and universities.
- Commercial health care vendors (e.g., home health agencies).
- Local emergency response and support agencies, such as the Red Cross.

The recruitment of community partners will depend on the resources available to the community. In addition, the actual coordination with community partners may be further refined based on the populations that are targeted for actual disease management during a pandemic. In working with community partners that will administer vaccine during a pandemic, LPHAs must ensure that these partners understand their roles and the expectations associated with this partnership, including a cold chain and security agreement for the vaccine. Specifically, the community partner must be prepared to accept and store their allotment of vaccine and must ensure that vaccine administration is properly documented for accountability purposes in the event that reimbursement becomes available, though it is hoped that these community partners would consider such collaboration a public health contribution to the community, rather than a cost-reimbursable or profit-making activity.

During a pandemic, communities who believe they are not receiving their needed share of vaccine, or community members who believe they are not receiving the full cooperation of the LPHAs, will be directed to forward such concerns or requests through their local emergency

operations center. The Department will receive such concerns or requests into the Department Situation Room from the state emergency operations center for response.

### Targeted Recipient Groups for Vaccine

Tier	Subtier	Population	Rationale
1	A	<ul style="list-style-type: none"> <li>• Vaccine and antiviral manufacturers and others essential to manufacturing and critical support (~40,000)</li> <li>• Medical workers and public health workers who are involved in direct patient contact, other support services essential for direct patient care, and vaccinators (8-9 million)</li> </ul>	<ul style="list-style-type: none"> <li>• Need to assure maximum production of vaccine and antiviral drugs</li> <li>• Healthcare workers are required for quality medical care (studies show outcome is associated with staff-to-patient ratios). There is little surge capacity among healthcare sector personnel to meet increased demand</li> </ul>
	B	<ul style="list-style-type: none"> <li>• People &gt; 65 years with 1 or more influenza high-risk conditions, not including essential hypertension (approximately 18.2 million)</li> <li>• People 6 months to 64 years with 2 or more influenza high-risk conditions, not including essential hypertension (approximately 6.9 million)</li> <li>• People 6 months or older with history of hospitalization for pneumonia or influenza or other influenza high-risk condition in the past year (740,000)</li> </ul>	<ul style="list-style-type: none"> <li>• These groups are at high risk of hospitalization and death. Excludes elderly in nursing homes and those who are immunocompromised and would not likely be protected by vaccination</li> </ul>
	C	<ul style="list-style-type: none"> <li>• Pregnant women (approximately 3.0 million)</li> <li>• Household contacts of severely immunocompromised people who would not be vaccinated due to likely poor response to vaccine (1.95 million with transplants, AIDS, and incident cancer x 1.4 household contacts per person = 2.7 million people)</li> <li>• Household contacts of children &lt;6 month olds (5.0 million)</li> </ul>	<ul style="list-style-type: none"> <li>• In past pandemics and for annual influenza, pregnant women have been at high risk; vaccination will also protect the infant who cannot receive vaccine.</li> <li>• Vaccination of household contacts of immunocompromised and young infants will decrease risk of exposure and infection among those who cannot be directly protected by vaccination</li> </ul>
	D	<ul style="list-style-type: none"> <li>• Public health emergency response workers critical to pandemic response (assumed one-third of estimated public health workforce=150,000)</li> <li>• Key government leaders</li> </ul>	<ul style="list-style-type: none"> <li>• Critical to implement pandemic response such as providing vaccinations and managing/monitoring response activities</li> <li>• Preserving decision-making capacity also critical for managing and implementing a response</li> </ul>
2	A	<ul style="list-style-type: none"> <li>• Healthy 65 years and older (17.7 million)</li> <li>• 6 months to 64 years with 1 high-risk condition (35.8 million)</li> <li>• 6-23 months old, healthy (5.6 million)</li> </ul>	<ul style="list-style-type: none"> <li>• Groups that are also at increased risk but not as high risk as population in Tier 1B</li> </ul>
	B	<ul style="list-style-type: none"> <li>• Other public health emergency responders (300,000 = remaining two-thirds of public health work force)</li> <li>• Public safety workers including police, fire, 911 dispatchers, and correctional facility staff (2.99 million)</li> <li>• Utility workers essential for maintenance of power, water, and sewage system functioning (364,000)</li> <li>• Transportation workers transporting fuel, water, food, and medical supplies as well as public ground public transportation (3.8 million)</li> <li>• Telecommunications/IT for essential network operations and maintenance (1.08 million)</li> </ul>	<ul style="list-style-type: none"> <li>• Includes critical infrastructure groups that have impact on maintaining health (e.g., public safety or transportation of medical supplies and food); implementing a pandemic response; and on maintaining societal functions</li> </ul>
3		<ul style="list-style-type: none"> <li>• Other key government health decisionmakers (estimated number not yet determined)</li> <li>• Funeral directors/embalmers (62,000)</li> </ul>	<ul style="list-style-type: none"> <li>• Other important societal groups for a pandemic response but of lower priority</li> </ul>
4		<ul style="list-style-type: none"> <li>• Healthy people 2-64 years not included in above categories (179.3 million)</li> </ul>	<ul style="list-style-type: none"> <li>• All people not included in other groups based on objective to vaccinate all those who want protection</li> </ul>



## **Definitions and rationales for priority groups as listed above**

### **Healthcare workers and essential healthcare support staff**

- **Definition**

Healthcare workers (HCW) with direct patient contact (including acute-care hospitals, nursing homes, skilled nursing facilities, urgent care centers, physician's offices, clinics, home care, blood collection centers, and EMS) and a proportion of people working in essential healthcare support services needed to maintain healthcare services (dietary, housekeeping, admissions, blood collection center staff, diagnostic laboratory staff, etc.). Also included are healthcare workers in public health with direct patient contact, including those who may administer vaccine or distribute influenza antiviral medications, and essential public health support staff for these workers.

- **Rationale**

The pandemic is expected to have substantial impact on the healthcare system with large increases in demand for healthcare services. HCW will treat influenza-infected patients and will be at risk of repeated exposures. Further, surge capacity in this sector is low. To encourage continued work in a high-exposure setting and to help lessen the risk of healthcare workers transmitting influenza to other patients and HCW family members, this group was given high priority. In addition, increases in bed/nurse ratios have been associated with increases in overall patient mortality. Thus, substantial absenteeism may affect overall patient care and outcomes.

### **Groups at high risk of influenza complications**

- **Definition**

Individuals two (2) to 64 years old with a medical condition for which influenza vaccine is recommended, and all individuals six (6) to 23 months and over 65 years. Excludes nursing home residents and severely immunocompromised people who would not be expected to respond well to vaccination.

- **Rationale**

These groups were prioritized based on their risk of influenza-related hospitalization and death and also their likelihood of vaccine response. Information from prior pandemics was used whenever possible, but information from interpandemic years was also considered. Nursing home residents and severely immunocompromised people would be prioritized for antiviral treatment and/or prophylaxis and vaccination of healthcare workers and household contacts who are most likely to transmit influenza to these high risk groups.

### **Critical infrastructure**

- **Definitions and rationale**

Those critical infrastructure sectors that fulfill one (1) or more of the following criteria: have increased demand placed on them during a pandemic, directly support reduction in deaths and hospitalization; function is critical to support the healthcare sector and other emergency services, and/or supply basic necessities and services critical to support of life and healthcare or emergency services. Groups included in critical infrastructure are

needed to respond to a pandemic and to minimize morbidity and mortality, and include the following sectors:

- People directly involved with influenza vaccine and antiviral medication manufacturing and distribution and essential support services and suppliers (e.g., growers of pathogen-free eggs for growth of vaccine virus) production activities.
- Key government leaders and health decision makers who will be needed to quickly move policy forward on pandemic prevention and control efforts.
- Public safety workers (firefighters, police, and correctional facility staff, including dispatchers) are critical to maintaining social functioning and order, and will contribute to a pandemic response, for example, by ensuring order at vaccination clinics and responding to medical emergencies.
- Utility service workers (water, power, and sewage management) provide services essential to the healthcare system as well as to preventing additional illnesses aggravated by lack of these services.
- Transportation workers who maintain critical supplies of food, water, fuel, and medical equipment and who provide public transportation, which is essential for provision of medical care and transportation of healthcare workers to work and transportation of ill people for care.
- Telecommunication and information technology services critical for maintenance and repairs of these systems are also essential as these systems are now critical for accessing and delivering medical care and supporting all other critical infrastructure.
- Mortuary services will be substantially impacted due to the increased numbers of deaths from a pandemic, especially among the elderly, a growing segment of the population.

### **Public health emergency response workers**

- **Definition**

This group includes people who do not have direct patient care duties, but are essential for influenza surveillance, assessment of the pandemic impact, allocation of public health resources for the pandemic response, development and implementation of public health policy as part of the response, and development of guidance as the pandemic progresses.

- **Rationale**

People in this sector have been critical for past influenza vaccine pandemics and influenza vaccine shortages, especially as little surge capacity may be available during a pandemic.

### **People in skilled nursing facilities**

- **Definition**

Patients residing in skilled nursing facilities. Not included in this group are people in other residential settings (e.g., assisted living) who are more likely to be mobile, in a setting that is less closed, and have decentralized healthcare.

- **Rationale**

This group was not prioritized for vaccine because of the medical literature finding poor response to vaccination with outbreaks despite high vaccination rates. Other studies have

suggested that vaccination of healthcare workers may be a more effective strategy to prevent influenza in this group. Further, surveillance for influenza can be conducted in this group and antiviral medications used widely for prophylaxis and treatment. Ill visitors and staff should also be kept from visiting nursing home facilities during outbreaks of pandemic influenza. This strategy for pandemic influenza vaccine differs from the aggressive interpandemic vaccination strategy for nursing home residents. It takes into account several factors: 1) these populations are less likely to benefit from vaccine than other groups who are also at high risk; 2) other prevention strategies feasible for this group are not possible among other high-risk groups; 3) the overall morbidity and mortality from pandemic is likely to severely impact other groups of people who would be expected to have a better response to the vaccine; and 4) a more severe shortage of vaccine is anticipated.

### **Severely immunocompromised people**

- **Definition**

People who are undergoing or who have recently undergone bone marrow transplantation and others with severe immunodeficiency (e.g., AIDS patients with CD4 counts less than 50, children with SCID syndrome). The numbers of people in these categories is likely much smaller than the anticipated number assumed in tiering above, but sources for more specific estimates have not been identified.

- **Rationale**

These groups have a lower likelihood of responding to influenza vaccination. Thus, strategies to prevent severe influenza in this group should include vaccination of healthcare workers and household contacts of severely immunocompromised people and use of antiviral medications. Consideration should be given to prophylaxis of severely immunocompromised people with influenza antivirals and early antiviral treatment should they become infected.

### **Children less than 6 months of age**

- **Rationale**

Influenza vaccine is poorly immunogenic in children less than six (6) months and the vaccine is currently not recommended for this group. In addition, influenza antiviral medications are not FDA-approved for use in children less than one (1) year old. Thus, vaccination of household contacts and out-of-home caregivers of children less than six (6) months is recommended to protect this high-risk group.

### **Other Discussion**

There was substantial discussion on priority for children. Four (4) potential reasons were raised for making vaccination of children a high priority:

- At the public engagement session, many participants expressed their belief that children should have high priority for vaccination.
- Children play a major role in transmitting infection, and vaccinating this group could slow the spread of disease and indirectly protect others.

- Children have strong immune systems and will respond well to vaccine, whereas vaccination of the elderly and those with illnesses may be less effective.
- Some ethical frameworks would support a pediatric priority.

ACIP and NVAC did not make children a priority (other than those included in tiers, because of their underlying diseases [Tiers 1B and 2A] or as contacts of high-risk people [Tier 1C]) for several reasons:

- Healthy children have been at low risk for hospitalization and death in prior pandemics and during annual influenza seasons.
- It is uncertain whether vaccination of children will decrease transmission and indirectly protect others. Studies that show this impact, or mathematical models that predict it, rely on high vaccination coverage that may not be possible to achieve given limited supplies in a pandemic.
- The committees recognize that this is an area for further scientific work; that children may be a good target population for live-attenuated influenza vaccine (FluMist®) if it is available; and that education of the public will be needed to provide the rationale for the recommendations.

### **Reporting Adverse Events to Vaccination**

Suspected adverse reactions to vaccination can be reported by providers, vaccine recipients, or anyone with responsibility for the health care of vaccine recipients. They can be reported to the Vaccine Adverse Event Reporting System (VAERS) on the web at <http://www.vaers.org/>, by mail using the VAERS form, which is attached, or by calling 800-822-7967. The designated VAERS coordinator at the DHSS can obtain information on all reporting of adverse events by calling 866-628-9891.

### **General Considerations**

Both the public and private sector will be mobilized to administer available vaccine. The exact proportion of vaccine to be purchased and administered through the public versus the private sector is yet to be established. However, it is likely that the public sector will take responsibility, at a minimum, for vaccinating health care workers, other “local responders,” certain essential community servants, the poor, and the uninsured. The actual organization of the vaccination program, in both the public and private sectors, will have to be customized for each community and target group and will depend on the extent and availability of infrastructure and resources. Success of the pandemic vaccination program will be determined in large part by public confidence in the benefits of influenza vaccination and the strength of state and local planning.

### **References**

[Complete references to come]

## ***Attachment A – Mass Vaccination Plan Outline***

### **Introduction**

During the first four (4)- six (6) months after vaccine becomes available, CDC estimates that three (3) – five (5) million doses of vaccine per month will be available nationwide. If that supply were distributed to states according to population, Missouri would receive 60,000-100,000 doses of vaccine per month.

“At the onset of an influenza pandemic, DHHS, in concert with the Congress and in collaboration with the States, will work with the pharmaceutical industry to acquire vaccine directed against the pandemic strain. Distribution of pandemic vaccine to health departments and providers will occur via private-sector vaccine distributors or directly via manufacturer. (Only stockpiled pre-pandemic vaccine would be distributed by the federal government, if used.)”--- DHHS Pandemic Influenza Plan: Supplement 6 Vaccine Distribution and Use  
<http://www.hhs.gov/pandemicflu/plan/sup6.html>

### **Vaccine Logistics and Security**

#### **Contract Vaccine Distributor**

- Vaccine will be shipped from CDC or manufacturer to contract vaccine distributor.
- Contract vaccine distributor will be responsible to provide appropriate 24/7 security.
- The contract distributor will store vaccine and medications according to manufacturers’ recommendations. A calibrated thermometer will be read and recorded twice daily by personnel experienced in vaccine preservation.
- Contract distributor will provide appropriate shipping materials.
- The Missouri Department of Health and Senior Services (DHSS), in cooperation with the State Emergency Management Agency (SEMA), Local Public Health Agencies (LPHAs), and other partners, will determine where and how much vaccine will be shipped to each LPHA.
- The Bureau of Immunization Assessment and Assurance (BIAA) will order vaccine for each vaccination site from the contract distributor.
- Contract distributor will ship vaccine directly to clinic sites, as ordered by BIAA.
- Contract distributor will maintain, on a real-time basis, the database inventory of each dose of vaccine that is transferred to each of the LPHAs designated to conduct the vaccination clinics.

#### **LPHA clinic sites**

- LPHAs will provide security for the vaccine during delivery and dispensing of the vaccine. LPHAs will ensure that they have a workable security plan in place to continue dispensing operations. DHSS will review security plans during the monitoring process for the pandemic influenza contract and provide technical planning assistance.

- LPHA clinic sites will be established throughout the state. LPHAs must be willing to assure that vaccine will be maintained in a secure, appropriate storage environment.
- DHSS site managers will be assigned as described herein.
- Refrigeration devices will be maintained according to manufacturers and DHSS recommendations.
- Vaccine inventories will be tracked into a DHSS database.
- Vaccine balances will be tracked daily.

### **Clinic Operations and Management**

DHSS will conduct site visits by trained staff with LPHAs to provide technical advice and quality assurance of documentation for proper vaccine handling, dating, storage, and overall maintenance.

### **Vaccine Safety Monitoring, Reporting, Treatment And Patient Referral**

- Division of Community and Public Health (DCPH) has established a legal basis for reporting adverse events.
- DHSS and the LPHAs will utilize CDC's clinic guidelines, screening forms, and fact sheets to educate individuals concerning possible adverse events.
- DCPH workgroup will identify information that must be captured to provide appropriate follow-up of primary vaccines, including adverse reactions. The workgroup will utilize federal disease reporting forms to capture this information.
- CHIME will modify immunization and disease reporting components of the Missouri Health Strategic Architectures and Information Cooperative (MOHSAIC) data system to track primary vaccines and adverse events.
- DHSS will educate medical care providers and LPHAs regarding adverse reactions and reporting requirements.
- DHSS will utilize a toll-free telephone number to enhance reporting of adverse reaction.
- Medical care providers will report to DHSS vaccine adverse reactions.
- LPHAs will provide follow up in consultation with DHSS and with logistical support from DHSS as needed.
- DHSS will report adverse reactions and investigation findings to CDC.

### **Resources**

Department of Health and Human Services <http://www.hhs.gov/pandemicflu/plan/>